US Army Corps of Engineers

TECHNICAL REPORT HL-92-3

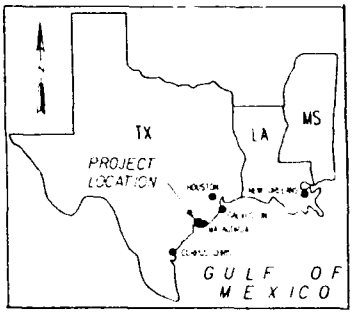
FIELD DATA COLLECTION REPORT MOUTH OF THE COLORADO RIVER, TEXAS

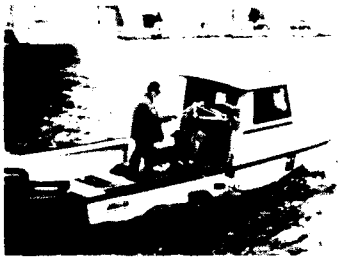
by

T. L. Fagerburg, C. J. Coleman
J. W. Parman, G. M. Fisackerly

Hydraulics Laboratory

DEPARTMENT OF THE ARMY
Waterways Experiment Station, Corps of Engineers
3909 Halls Ferry Road, Vicksburg, Mississippi 39180-6199





HYDRAULICS LABORATORY

March 1992
Final Report

Prepared for US Army Engineer District, Galveston
Galveston, Texas 77553

Destroy this report when no longer needed. Do not return it to the originator.

The findings in this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	March 1992	Final report

4. TITLE AND SUBTITLE

Field Data Collection Report, Mouth of the Colorado River, Texas

5. FUNDING NUMBERS

6. AUTHOR(S)

T. L. Fagerburg
C. J. Coleman
J. W. Parman
G. M. Fisackerly

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

USAE Waterways Experiment Station, Hydraulics Laboratory, 3909 Halls Ferry Road, Vicksburg, MS 39180-6199

8. PERFORMING ORGANIZATION REPORT NUMBER

Technical Report HL-92-3

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

USAE District, Galveston, PO Box 1229, Galveston, TX 77553

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

Available from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

Water levels, current speed, current direction, and salinity measurements were obtained in the Colorado River study area from 22 to 26 May 1990. The data were collected to provide synoptic information of flow circulation patterns, tidal propagation, and salinities for use in tow simulation and long-term numerical modeling. This report describes the equipment and procedures used in the data collection effort and presents tables and plots of the data.

14. SUBJECT TERMS

Colorado River	Salinity	Water-surface elevation
Current direction	Tidal phase	Wind direction
Current speed	Tide range	Wind speed

15. NUMBER OF PAGES 129

16. PRICE CODE

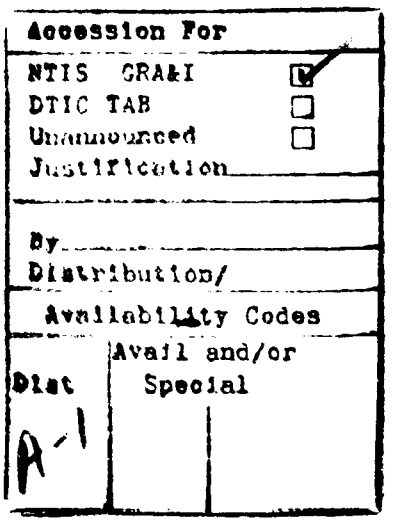
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED		

PREFACE

The field investigation reported herein was conducted by the US Army Engineer Waterways Experiment Station (WES), Vicksburg, MS, during 22-26 May 1990 to provide the necessary data for support of the US Army Engineer District, Galveston. The liaison person for the Galveston District was Mr. E. Riendl. The WES liaison person was Mr. L. M. Hauck of the Estuarine Simulation Branch, Estuaries Division (ED), Hydraulics Laboratory (HL), WES.

Personnel of the Estuarine Processes Branch (EPB), ED, performed the work under the general supervision of Messrs. F. A. Herrmann, Jr., Chief, HL; R. A. Sager, Assistant Chief, HL; W. H. McAnally, Jr., Chief, ED; and G. M. Fisackerly, Chief, EPB. The data collection program was designed by Messrs. Fisackerly, T. L. Fagerburg, H. A. Benson, and J. W. Parman. The field work was performed by Messrs. Fagerburg, Benson, Parman, J. M. Savage, S. E. Varnell, and J. S. Ashley. Data reduction was performed by Ms. C. J. Coleman and Mr. Fagerburg. Laboratory analysis of water samples was performed by Messrs. L. G. Caviness and S. Knowles. This report was prepared by Messrs. Fagerburg, Fisackerly, and Parman, and Ms. Coleman. The report was edited by Mrs. M. C. Gay, Information Technology Laboratory, WES.

Commander and Director of WES during preparation of this report was COL Larry B. Fulton, EN. Technical Director was Dr. Robert W. Whalin.



CONTENTS

CONVERSION FACTORS, NON-SI TO SI (METRIC)
UNITS OF MEASUREMENT

Non-SI units of measurements used in this report can be converted to SI (metric) units as follows:

Multiply	By	To Obtain
feet	0.3048	metres
inches	25.4	millimetres
miles (US statute)	1.609347	kilometres
yards	0.9144	metres

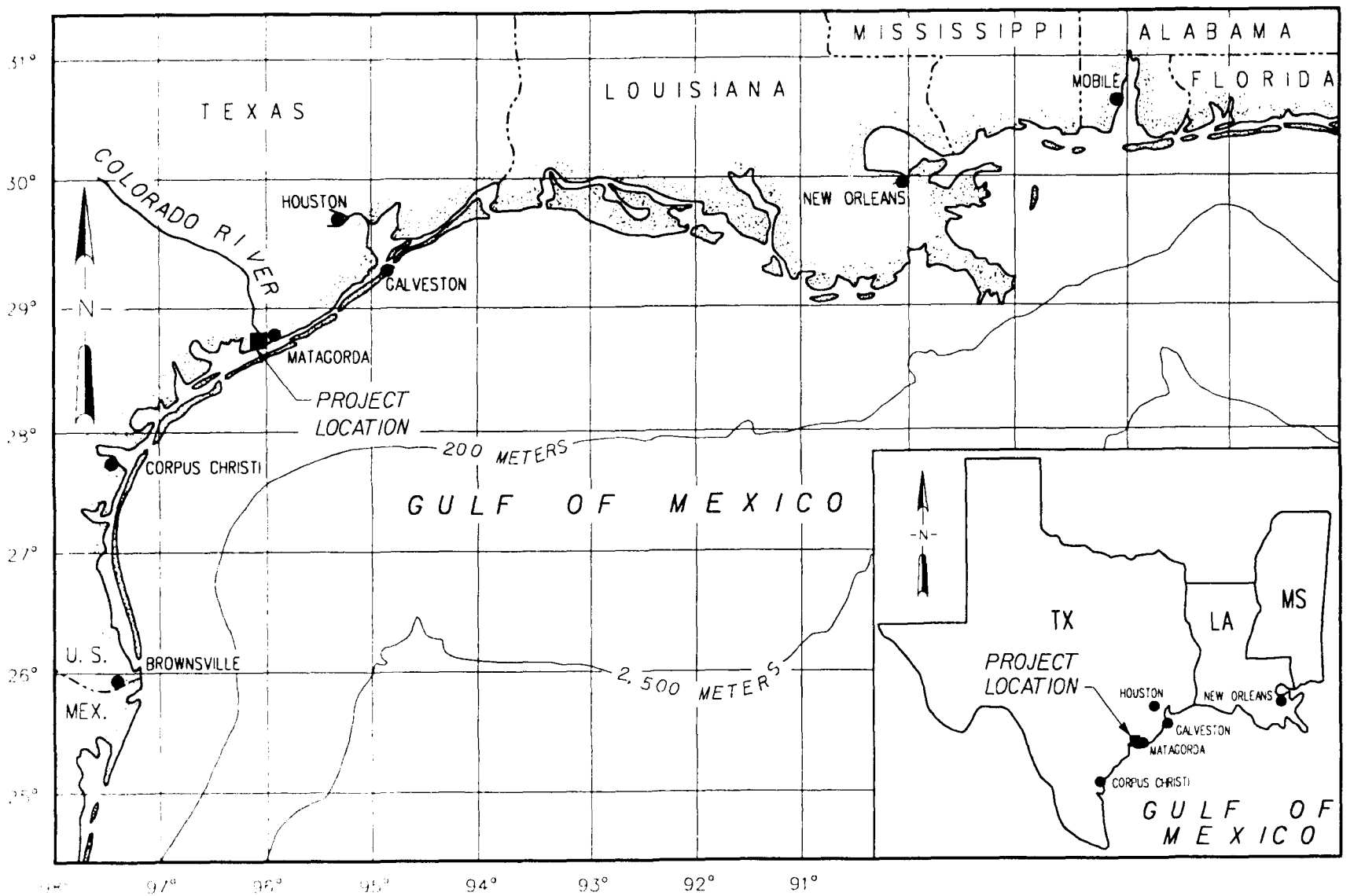


Figure 1. Project location and vicinity map

FIELD DATA COLLECTION REPORT, MOUTH OF THE COLORADO RIVER, TEXAS

PART I: INTRODUCTION

Background

1. The Mouth of the Colorado River, Texas, Project is located on the Texas coastline about midway between the ports of Galveston and Corpus Christi, TX (Figure 1). The project consists of a diversion channel of the Colorado River into the eastern arm of Matagorda Bay, a dam on the present Colorado River channel downstream of the diversion channel, a dam at Parker's (Tiger Island) Cut, and a navigation bypass channel from the Gulf of Mexico to the city of Matagorda, TX. As authorized, the project consists of navigation, recreation, and river diversion features.

2. The Gulf Intracoastal Waterway (GIWW) is a prominent feature in the project area. At the junction of the GIWW and the Colorado River there are two navigation locks. These two locks, termed the east and west Colorado River locks, serve as sediment control structures for flows entering the GIWW from the river and facilitate barge crossings at times of excessive velocities at the GIWW-Colorado River intersection.

3. Another pertinent feature of the project, which was added only recently, is a freshwater diversion channel located immediately downstream of the intersection of the Colorado River and the GIWW. The diversion channel functions to divert freshwater flows from the river into the upper end of Matagorda Bay. The inflow of fresh water is expected to reduce existing high salinity concentrations in the upper bay, which are potentially detrimental to commercial fishing in the area.

Purpose

4. The objective of the overall study is to provide synoptic data of flow circulation patterns, tidal propagation, and salinities at various stations throughout the system for use in tow simulation and long-term numerical modeling. The purpose of this report is to present the instrumentation and

techniques employed during the data collection period and provide a permanent record of the data.

Scope

5. This report presents representative results of the field data collection program in the Mouth of the Colorado River Project during the period 22-26 May 1990. Measurements consisted of the following:

a. Water level elevations at four locations.

b. Salinity readings at three of these locations.

c. Current speed and direction at seven ranges.

d. Wind speed and direction in the study area.

This report describes the field investigation methods used to collect the data, displays the results of the data reduction efforts, and summarizes the results of the data collection effort.

PART II: DATA COLLECTION PROGRAM

6. Data were collected in the Colorado River and GIWW at the Colorado River locks on 22-26 May 1990. During this time, water level recorders were in place continuously. One major data collection schedule (25-hr survey) was structured around the deployment of the recording water level meters. During this survey period, hourly measurements of current speed and direction in addition to continuous water level fluctuation measurements were obtained. Meteorological data, wind speed and direction, were also collected continuously during this study. This data collection effort is described in the subsequent sections of this report.

Equipment

Water-surface elevations

7. The long-term data collection of water-surface elevation, temperature, conductivity, and salinity measurements at several locations was recorded using Environmental Devices Corporation (ENDECO) model 1152 solid-state measurement (SSM) water level recorders similar to that shown in Figure 2. Water level fluctuations only were recorded at the mouth of the Colorado River using an ENDECO model 1029. The ENDECO model 1152 SSM and the model 1029

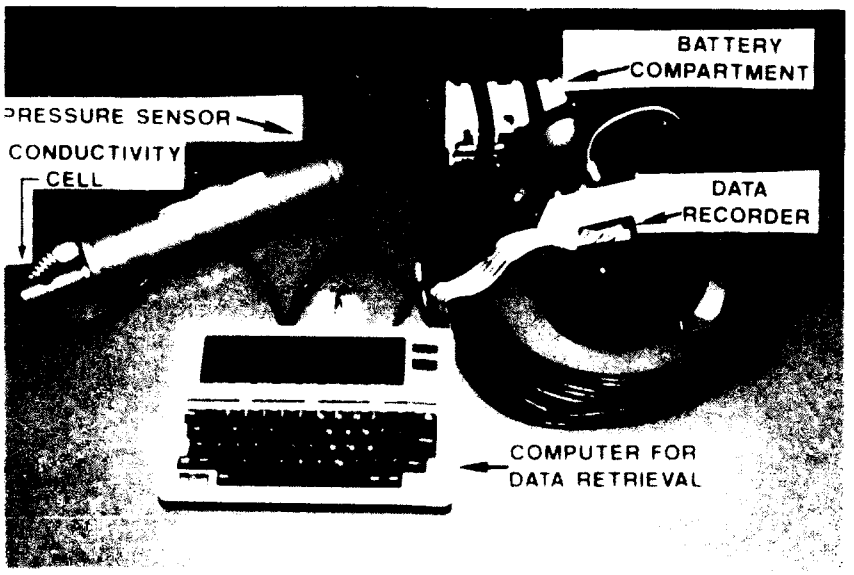


Figure 2. Water level recorder

recorders contain a strain gage type pressure transducer located in a subsurface case that is used to record the absolute pressure of the column of water above the case. The pressure transducer is vented to the atmosphere by a small tube in the signal cable to compensate for any changes in atmospheric pressure. The pressure is measured for 49 sec of each minute of the recording interval with a frequency of 5-55 kHz to filter out surface waves, therefore eliminating the need for a stilling well. The accuracy is ±0.02 ft.* The sampling time interval can be set from 1 min to 1 hr on the 1152 SSM. A 10-min sampling interval was chosen for this study.

Temperature, conductivity, and salinity measurements

8. The ENDECO 1152 also measures temperature by means of a thermilinear thermistor built into the water level recorder. The thermistor has a range of -5 °C to ±45 °C, with an accuracy of ±0.2 percent of full scale (0.1 °C). Conductivity is measured by means of an inductively coupled probe installed on the meter. The probe has a range of 0-80 mmho/cm with an accuracy of ±0.55 mmho/cm. Salinity values are then computed from the output of the conductivity and temperature measurements and displayed in units of parts per thousand (ppt).

9. The sampling time interval for these parameters is set the same (10 min) as for the water level measurements; they cannot be set independently. The water level and salinity data from each recorder are stored on a removable EPROM solid-state memory cartridge located in a waterproof surface unit that also contains the d-c power supply.

Water level measurement locations

10. A total of four water level recorders were deployed throughout the study area as shown in Figure 3. These locations are identified by the following: S1.0, S2.0, S3.0, and S4.0. The locations were chosen for the availability of a mounting structure and relative distances from junction of the GIWW and the Colorado River. The locations adequately covered the total study area to provide information on differences in time of peak tides and range of tides.

---

* A table of factors for converting non-SI units of measurement to SI (metric) units is found on page 3.

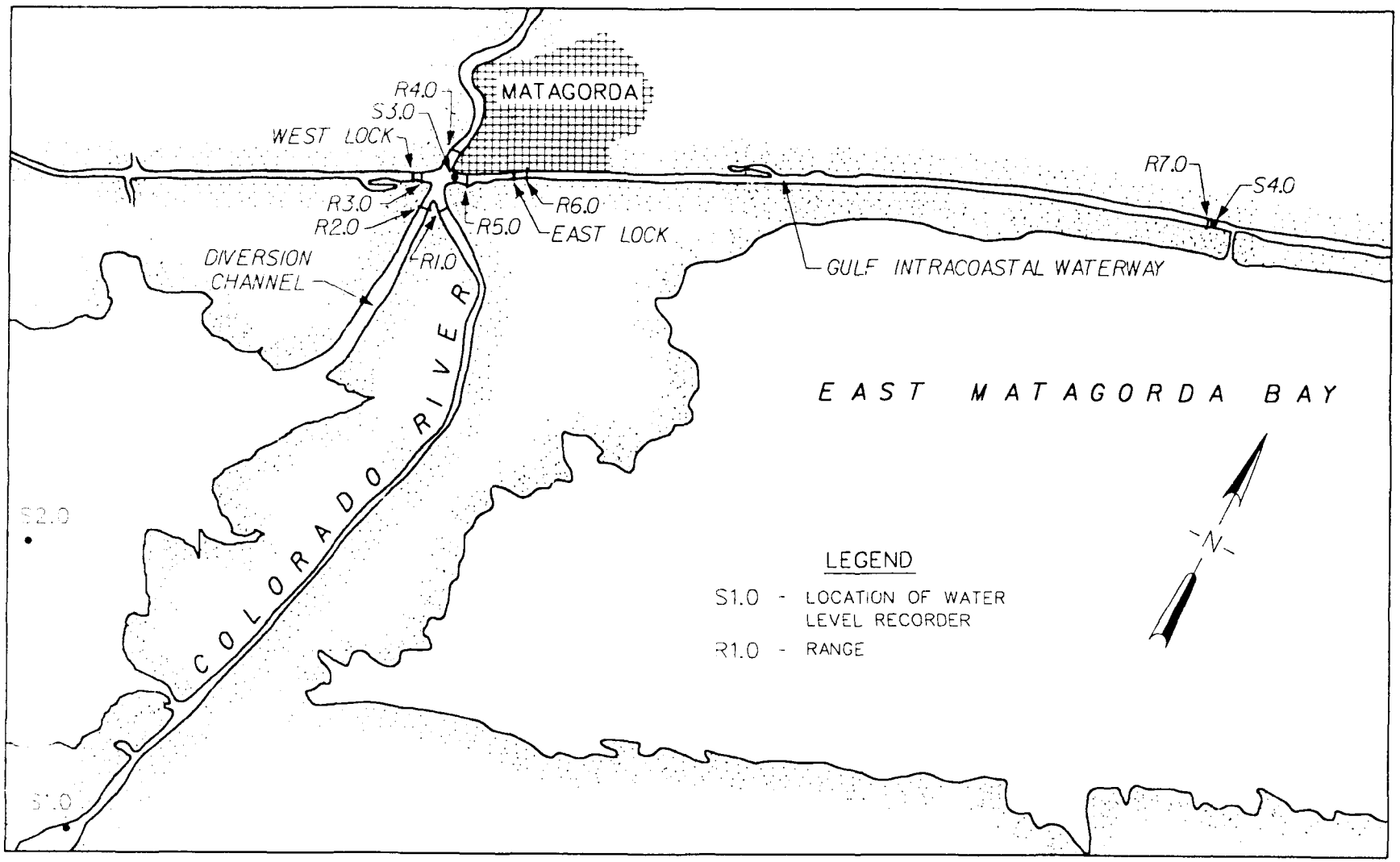


Figure 3. Instrument location map

25-hr Survey Data Collection Equipment

Current speed and direction

11. Each boat used in the survey was equipped to deploy instruments over the side using the portable equipment setup shown in Figure 4. Collapsible aluminum frames were used to support the equipment, and winches with 1/8-in. wire rope were used to raise and lower the velocity and direction equipment. An indicator on the winch displayed the depth of the instruments below the water surface. A Gurley Model 665 vertical axis cup type impeller velocity meter with direct velocity readout capabilities was used to measure the current speeds. These meters have a threshold speed of less than 0.2 fps and an accuracy of ±0.1 fps for velocities less than 1 fps. Current directions were monitored with a magnetic directional indicator mounted above the velocity meter on a solid suspension bar. This entire assembly was connected to a streamlined lead weight that held the sensors in a vertical position and oriented them into the direction of the flow. The signal cables from each instrument were raised and lowered with the equipment and connected to the display units located on the deck of the boat. A more detailed display of the system is shown in Figure 5.

Meteorological data

12. The wind conditions prior to, during, and immediately following the 25-hr survey were recorded using a HANDAR Model No. 540-A Data Acquisition System (Figure 6). The directions and speeds of the prevailing winds were recorded by the data collection platform located on the east side of the Colorado River atop an 80-ft-high light tower situated on the lock property. The data acquisition system was a battery-powered microcomputer with a real-time clock, a serial data interface, and programmable analog-to-digital converter. Twelve times each hour the system sampled the input signals from the wind speed and direction sensors. Also the system was programmed to sample the input signals each second over a 15-min period to determine the mean wind speed, mean direction, maximum wind gust speed, and maximum wind gust direction. The data were then processed and stored in formats specified in a user-entered output table. The accuracy of the analog input of the system is ±0.1 mph.

Procedures

13. For the 25-hr data collection period in the Colorado River study

Figure 4. Field deployment of velocity measuring equipment

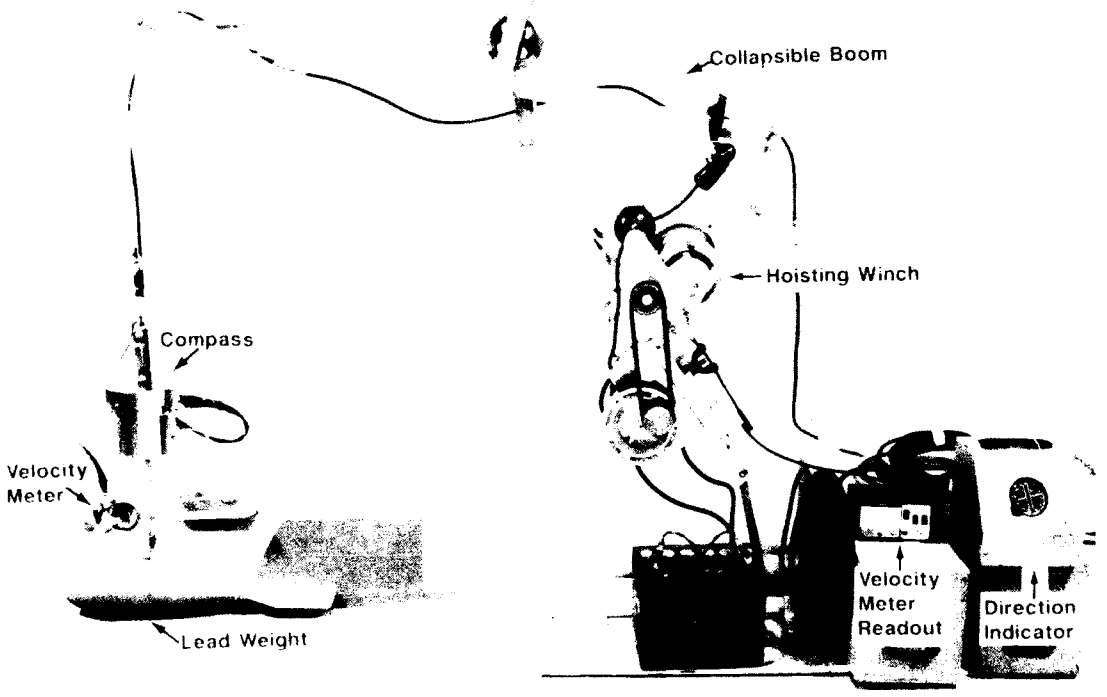


Figure 5. Components of the field instrument assembly

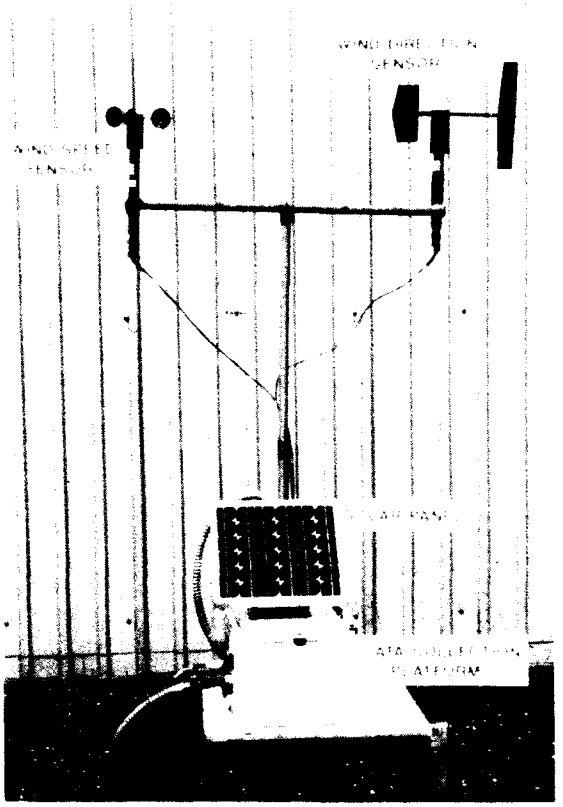


Figure 6. Wind speed and direction data acquisition system

area, a total of seven ranges were selected to yield the information most applicable to the problem statement. The general locations of these ranges are shown in Figure 3. Range R1.0, located in the Colorado River immediately below the entrance to the freshwater diversion channel, had three stations equally spaced across the channel. Stations 1-A and 1-C were located at the edges of the channel and station 1-B was located at the channel center line. Range R2.0, located in the freshwater diversion channel, approximately 200 yd from the entrance from the Colorado River, also had three stations equally spaced across the range. Range R3.0, located at the entrance to the west lock on the GIWW, had three stations equally spaced across the range, station 3-B being located at the center line of the lock entrance. Stations 3-A and 3-C were located approximately 35 ft from the respective shorelines. Range R4.0 was located in the Colorado River approximately 100 yd north of the junction of the Colorado River and the GIWW. The three stations were positioned similar to those of range R1.0. Range R5.0 was located immediately in front of the entrance to the east lock from the Colorado River. Range R6.0 was located at the eastern end of the east lock approximately 150 yd to the east of the lock gates. The station locations at these two ranges were similar to those described for Range R3.0. Range R7.0 was located approximately 7 miles east of the east lock in the GIWW near a small entrance into East Matagorda Bay.

14. Prior to the beginning of the survey, the boats assigned to each range deployed anchors and mooring lines at each of the stations. The mooring line were attached to large inflated buoys for retrieving the lines during each sampling period. The boat moved into position at each of the buoys and used the anchored line to hold a steady position in the current while the data

collection was performed. At each A and C station, the velocity data were collected at bottom, middepth, and surface for each hour of the survey period. The bottom measurement was made at a distance of 2 ft from the actual bottom. The middepth measurement was obtained at the actual middepth measurement. The surface measurement was obtained at a distance of 3 ft below the water surface. Data collected at each center-line or B station for each range were obtained every other hour. The first reading for the center-line station was obtained beginning at the second hour of the survey period. The data collected at range R7.0 were collected every other hour due to the distance and time required to reach the range.

Conditions of the survey

15. The 25-hr data collection period encompassed entire tide cycles during maximum tidal ranges (spring tides). Also the gates to both locks were set in the open position for 36 hr prior to the data collection period. The normal operation of the locks is to close the gates closest to the junction of the GIWW and the Colorado River to control sediment deposits from the river-flows entering the GIWW and to reduce the effects of excessive currents on vessels crossing the Colorado River to enter the locks. Leaving the gates open provided an opportunity to obtain data for unrestricted flow through the lock structures.

16. The maximum tidal range measured during the survey was 1.81 ft in the area of the east Matagorda locks and 3.07 ft near the south end of the study area at the mouth of the Colorado River. Calm and clear weather conditions prevailed during the survey. Mostly clear skies existed at the time of the survey and the wind conditions ranged from a slight breeze to southeast winds of 15 mph. No significant freshwater runoff into the GIWW was observed during the survey period.

PART III: DATA PRESENTATION

Water Level Data

17. The records of the tidal variation of the water-surface elevation data observed before and during the survey are listed in Tables 1-4. The plots of these water-surface elevation changes for the installation period are shown in Plates 1-4. The duration of the 25-hr survey is shown by the cross-hatched area on each plot. Water level recorders S1.0, S2.0, S3.0, and S4.0 appeared to function properly during the period immediately prior to and following the survey.

18. The data from S1.0 were used as a reference for comparison with the data from the other stations to estimate tidal phase and range differences between the mouth of the Colorado River, the eastern end of Matagorda Bay, and the eastern end of the GIWW. This comparison illustrated that ranges of tides observed were significantly different. The maximum tidal ranges observed during the survey at S1.0 and S3.0 were 3.07 ft and 1.81 ft, respectively. The comparison also reflected the tide phase difference of approximately 6.0 hr between S1.0 and S3.0 (occurring on 5-25-90 between the hours of 0550 and 1200 Central Standard Time (CST)) at the time of high water. The water-surface elevations for S2.0 and S3.0 were essentially equal in magnitude and time of high and low water levels. Water level recorder S4.0 recorded the smallest change in amplitude, 0.3 ft.

Over-the-Side Current Speed and Direction Data

19. Tables 5-24 are time series listings of the over-the-side current speed data obtained at the seven ranges as described in paragraph 13. Plates 5-24 are plots of the velocity data for each range for the cycle of the tide (ebb and flood) during the survey periods. At each station the current speed and direction were measured at three depths: near bottom, middepth, and near surface. The maximum velocity observed in the Colorado River at station R1.0B, in the channel, was 3.1 fps at the surface and middepth during ebb flow. The maximum velocity observed in the diversion channel at station R2.0C was 2.7 fps at the surface during ebb flow. The maximum velocity in the GIWW channel at station R5.0C was 3.2 fps at the middepth during ebb flow.

20. The locations of ranges R5.0 and R6.0, at the west and east ends of the east lock, respectively, provided a unique opportunity to observe unrestricted flow patterns entering and exiting the lock structure during ebb and flood tidal periods. The following observations were made from a combination of field observation notes and a review of the current speed data.

21. During the flood tide the flows entering the east lock across range R5.0 were generally uniform in magnitude and direction. The flows exiting the lock at range R6.0 had the highest magnitude currents concentrated along the north side of the GIWW channel. Upon reversal of the tide to ebb flows, concentration of the higher magnitude currents shifted to the south side of the GIWW channel at range R6.0. At range R5.0, during the ebb tide, the flows were no longer uniform. The higher magnitude currents were found to be concentrated along the south side of the GIWW channel, and a large eddy formed along the north side of the channel. Also at the entrance to the lock a standing wave formed at the strength of ebb, resulting in flow over the lock sill plate. This made maneuvering through the lock difficult for some barges without assistance from another towboat.

22. The magnitudes of the velocities during ebb flows at all the other data collection ranges were observed to be considerably higher as indicated by the velocity measurements. At range R1.0 the velocities were increased significantly at all stations. The velocities at range R2.0 in the diversion channel were also found to have increased but were also observed to be concentrated along the north side of the channel as opposed to a more uniform distribution during the flood flow. The velocities recorded at ranges R3.0 and R4.0 increased slightly during the ebb flow periods; however, no unusual flow patterns were observed at these locations.

Salinity Data

23. The salinity data were obtained from ENDECO 1152 water level recorders located at S2.0, S3.0, and S4.0. Tables 2-4 list the salinity values as they varied with time. Plates 25-27 show the time-history plots of the salinity values for these locations. The salinities recorded at S2.0 in Matagorda Bay responded to the changes in the tide cycle and also to the amount of fresh water flowing from the diversion channel. The salinity values at this location ranged from 14 to 25 ppt prior to the survey. During the

survey the salinity values changed very little, ranging from 17 to 21 ppt. The salinities recorded at S3.0 ranged from 4 to 21 ppt. The constant fluctuation seen in Plate 26 may reflect the effects of the circulation patterns of the fresh water near the surface flowing from the Colorado River into the vicinity of the recorder near the entrance of the east lock. The salinities at S4.0 varied slightly, ranging from 17 to 19 ppt during the survey.

Wind Speeds and Direction

24. Plates 28 and 29 present the time-history of the wind speeds and directions, respectively, before and during the survey period. The wind speeds during the survey ranged from 6 to 15 mph and were predominantly from the southeast.

PART IV: SUMMARY

25. The data presented herein were collected from the intensive survey sampling efforts within the Colorado River study area. The following observations were made of the data:

a. There appears to be a slight decrease in the maximum range of water surface (tide) (1.2 ft) from the mouth of the Colorado River water level recorder, S1.0, to the water level recorder at the Matagorda locks, S3.0.

b. The time difference for peak water levels between the mouth of the Colorado River (S1.0) and the Matagorda locks (S3.0) is about 6 hr.

c. The maximum velocities observed during the survey occurred during ebb of the tidal cycle. The maximum recorded velocity was 3.2 fps at station S5.0C.

d. Eddies and unusual flow circulation patterns were observed during ebb tide in the area of the east lock during the uncontrolled flow conditions of the data collection period.

e. The highest variations of salinity occurred at the entrance to the east lock chamber as a result of the tidal effects and circulation patterns of fresh water.

Table 1

Water-Surface Elevation for Station S1.0

Date	Time cst	Water-Surface Elevation ft	Date	Time cst	Water-Surface Elevation ft
05/22/90	09:00	-0.40	05/22/90	15:50	-1.47
05/22/90	09:10	+0.04	05/22/90	16:00	-1.83
05/22/90	09:20	-0.08	05/22/90	16:10	-1.89
05/22/90	09:30	-0.15	05/22/90	16:20	-1.99
05/22/90	09:40	-0.12	05/22/90	16:30	-1.94
05/22/90	09:50	-0.17	05/22/90	16:40	-1.84
05/22/90	10:00	-0.17	05/22/90	16:50	-1.80
05/22/90	10:10	-0.14	05/22/90	17:00	-1.68
05/22/90	10:20	-0.21	05/22/90	17:10	-1.59
05/22/90	10:30	-0.21	05/22/90	17:20	-1.60
05/22/90	10:40	-0.05	05/22/90	17:30	-1.58
05/22/90	10:50	+0.12	05/22/90	17:40	-1.61
05/22/90	11:00	+0.11	05/22/90	17:50	-1.59
05/22/90	11:10	+0.10	05/22/90	18:00	-1.42
05/22/90	11:20	-0.04	05/22/90	18:10	-1.63
05/22/90	11:30	-0.17	05/22/90	18:20	-1.64
05/22/90	11:40	-0.34	05/22/90	18:30	-1.63
05/22/90	11:50	-0.27	05/22/90	18:40	-1.57
05/22/90	12:00	-0.33	05/22/90	18:50	-1.47
05/22/90	12:10	-0.24	05/22/90	19:00	-1.45
05/22/90	12:20	-0.08	05/22/90	19:10	-1.64
05/22/90	12:30	+0.01	05/22/90	19:20	-1.62
05/22/90	12:40	-0.23	05/22/90	19:30	-1.61
05/22/90	12:50	-0.07	05/22/90	19:40	-1.61
05/22/90	13:00	-0.39	05/22/90	19:50	-1.59
05/22/90	13:10	-0.55	05/22/90	20:00	-1.58
05/22/90	13:20	-0.65	05/22/90	20:10	-1.39
05/22/90	13:30	-0.95	05/22/90	20:20	-1.42
05/22/90	13:40	-0.89	05/22/90	20:30	-1.25
05/22/90	13:50	-0.98	05/22/90	20:40	-1.26
05/22/90	14:00	-0.98	05/22/90	20:50	-1.26
05/22/90	14:10	-0.73	05/22/90	21:00	-1.11
05/22/90	14:20	-1.07	05/22/90	21:10	-1.24
05/22/90	14:30	-1.03	05/22/90	21:20	-1.21
05/22/90	14:40	-1.36	05/22/90	21:30	-1.15
05/22/90	14:50	-1.17	05/22/90	21:40	-1.11
05/22/90	15:00	-1.31	05/22/90	21:50	-1.34
05/22/90	15:10	-1.09	05/22/90	22:00	-1.15
05/22/90	15:20	-1.41	05/22/90	22:10	-0.98
05/22/90	15:30	-1.71	05/22/90	22:20	-0.97
05/22/90	15:40	-1.38	05/22/90	22:30	-0.80

(Continued)

Note: Mean water-surface elevation (+3.79 ft) used as datum.

Table 1 (Continued)

Date	Time cst	Water-Surface Elevation ft
05/22/90	22:40	-0.71
05/22/90	22:50	-0.48
05/22/90	23:00	-0.52
05/22/90	23:10	-0.30
05/22/90	23:20	-0.29
05/22/90	23:30	-0.06
05/22/90	23:40	-0.17
05/22/90	23:50	-0.23
05/23/90	00:00	-0.25
05/23/90	00:10	-0.21
05/23/90	00:20	-0.21
05/23/90	00:30	+0.07
05/23/90	00:40	+0.03
05/23/90	00:50	+0.18
05/23/90	01:00	+0.34
05/23/90	01:10	+0.29
05/23/90	01:20	+0.26
05/23/90	01:30	+0.33
05/23/90	01:40	+0.36
05/23/90	01:50	+0.24
05/23/90	02:00	+0.23
05/23/90	02:10	+0.27
05/23/90	02:20	+0.47
05/23/90	02:30	+0.49
05/23/90	02:40	+0.62
05/23/90	02:50	+0.55
05/23/90	03:00	+0.68
05/23/90	03:10	+0.68
05/23/90	03:20	+0.68
05/23/90	03:30	+0.60
05/23/90	03:40	+0.65
05/23/90	03:50	+0.75
05/23/90	04:00	+0.78
05/23/90	04:10	+0.69
05/23/90	04:20	+0.76
05/23/90	04:30	+0.70
05/23/90	04:40	+0.67
05/23/90	04:50	+0.83
05/23/90	05:00	+0.79
05/23/90	05:10	+0.92
05/23/90	05:20	+0.75
05/23/90	05:30	+0.67
05/23/90	05:40	+0.71
05/23/90	05:50	+0.65
05/23/90	06:00	+0.67
05/23/90	06:10	+0.79
05/23/90	06:20	+0.75
05/23/90	06:30	+0.70
05/23/90	06:40	+0.76
05/23/90	06:50	+0.65
05/23/90	07:00	+0.59
05/23/90	07:10	+0.64
05/23/90	07:20	+0.74
05/23/90	07:30	+0.62
05/23/90	07:40	+0.63
05/23/90	07:50	+0.52
05/23/90	08:00	+0.66
05/23/90	08:10	+0.60
05/23/90	08:20	+0.59
05/23/90	08:30	+0.74
05/23/90	08:40	+0.69
05/23/90	08:50	+0.56
05/23/90	09:00	+0.56
05/23/90	09:10	+0.37
05/23/90	09:20	+0.35
05/23/90	09:30	+0.24
05/23/90	09:40	+0.26
05/23/90	09:50	+0.28
05/23/90	10:00	+0.27
05/23/90	10:10	+0.30
05/23/90	10:20	+0.46
05/23/90	10:30	+0.50
05/23/90	10:40	+0.58
05/23/90	10:50	+0.52
05/23/90	11:00	+0.48
05/23/90	11:10	+0.50
05/23/90	11:20	+0.46
05/23/90	11:30	+0.51
05/23/90	11:40	+0.45
05/23/90	11:50	+0.41
05/23/90	12:00	+0.40
05/23/90	12:10	+0.49
05/23/90	12:20	+0.49
05/23/90	12:30	+0.37
05/23/90	12:40	+0.33
05/23/90	12:50	+0.27
05/23/90	13:00	+0.23
05/23/90	13:10	+0.17
05/23/90	13:20	+0.14
05/23/90	13:30	+0.06
05/23/90	13:40	-0.04
05/23/90	13:50	+0.00

(Continued)

Table 1 (Continued)

Date	Time cst	Water-Surface Elevation ft	Date	Time cst	Water-Surface Elevation ft
05/23/90	14:00	-0.03	05/23/90	21:50	-0.80
05/23/90	14:10	+0.04	05/23/90	22:00	-0.76
05/23/90	14:20	+0.06	05/23/90	22:10	-0.54
05/23/90	14:30	+0.02	05/23/90	22:20	-0.54
05/23/90	14:40	+0.01	05/23/90	22:30	-0.53
05/23/90	14:50	-0.16	05/23/90	22:40	-0.49
05/23/90	15:00	-0.26	05/23/90	22:50	-0.45
05/23/90	15:10	-0.33	05/23/90	23:00	-0.28
05/23/90	15:20	-0.28	05/23/90	23:10	-0.21
05/23/90	15:30	-0.32	05/23/90	23:20	-0.06
05/23/90	15:40	-0.41	05/23/90	23:30	+0.08
05/23/90	15:50	-0.44	05/23/90	23:40	+0.06
05/23/90	16:00	-0.49	05/23/90	23:50	+0.10
05/23/90	16:10	-0.65	05/24/90	00:00	+0.07
05/23/90	16:20	-0.67	05/24/90	00:10	+0.13
05/23/90	16:30	-0.69	05/24/90	00:20	+0.17
05/23/90	16:40	-0.74	05/24/90	00:30	+0.23
05/23/90	16:50	-0.75	05/24/90	00:40	+0.26
05/23/90	17:00	-0.89	05/24/90	00:50	+0.34
05/23/90	17:10	-0.98	05/24/90	01:00	+0.35
05/23/90	17:20	-1.01	05/24/90	01:10	+0.45
05/23/90	17:30	-1.04	05/24/90	01:20	+0.55
05/23/90	17:40	-0.98	05/24/90	01:30	+0.59
05/23/90	17:50	-1.06	05/24/90	01:40	+0.66
05/23/90	18:00	-1.10	05/24/90	01:50	+0.70
05/23/90	18:10	-1.12	05/24/90	02:00	+0.80
05/23/90	18:20	-1.11	05/24/90	02:10	+0.90
05/23/90	18:30	-1.10	05/24/90	02:20	+0.90
05/23/90	18:40	-1.26	05/24/90	02:30	+0.95
05/23/90	18:50	-1.30	05/24/90	02:40	+0.96
05/23/90	19:00	-1.34	05/24/90	02:50	+1.00
05/23/90	19:10	-1.32	05/24/90	03:00	+0.98
05/23/90	19:20	-1.23	05/24/90	03:10	+0.99
05/23/90	19:30	-1.14	05/24/90	03:20	+1.08
05/23/90	19:40	-1.09	05/24/90	03:30	+1.08
05/23/90	19:50	-1.12	05/24/90	03:40	+1.12
05/23/90	20:00	-1.03	05/24/90	03:50	+1.23
05/23/90	20:10	-1.04	05/24/90	04:00	+1.24
05/23/90	20:20	-1.02	05/24/90	04:10	+1.29
05/23/90	20:30	-1.17	05/24/90	04:20	+1.28
05/23/90	20:40	-1.15	05/24/90	04:30	+1.29
05/23/90	20:50	-1.08	05/24/90	04:40	+1.26
05/23/90	21:00	-1.14	05/24/90	04:50	+1.26
05/23/90	21:10	-1.06	05/24/90	05:00	+1.27
05/23/90	21:20	-0.94	05/24/90	05:10	+1.28
05/23/90	21:30	-0.99	05/24/90	05:20	+1.27
05/23/90	21:40	-0.93	05/24/90	05:30	+1.28

(Continued)

Table 1 (Continued)

Date	Time cst	Water-Surface Elevation ft
05/24/90	05:40	+1.31
05/24/90	05:50	+1.29
05/24/90	06:00	+1.30
05/24/90	06:10	+1.28
05/24/90	06:20	+1.27
05/24/90	06:30	+1.35
05/24/90	06:40	+1.28
05/24/90	06:50	+1.25
05/24/90	07:00	+1.20
05/24/90	07:10	+1.22
05/24/90	07:20	+1.24
05/24/90	07:30	+1.23
05/24/90	07:40	+1.25
05/24/90	07:50	+1.18
05/24/90	08:00	+1.21
05/24/90	08:10	+1.13
05/24/90	08:20	+1.14
05/24/90	08:30	+1.07
05/24/90	08:40	+1.03
05/24/90	08:50	+0.96
05/24/90	09:00	+1.01
05/24/90	09:10	+0.99
05/24/90	09:20	+0.95
05/24/90	09:30	+0.91
05/24/90	09:40	+0.87
05/24/90	09:50	+0.84
05/24/90	10:00	+0.79
05/24/90	10:10	+0.82
05/24/90	10:20	+0.82
05/24/90	10:30	+0.78
05/24/90	10:40	+0.82
05/24/90	10:50	+0.77
05/24/90	11:00	+0.82
05/24/90	11:10	+0.68
05/24/90	11:20	+0.71
05/24/90	11:30	+0.73
05/24/90	11:40	+0.64
05/24/90	11:50	+0.59
05/24/90	12:00	+0.63
05/24/90	12:10	+0.61
05/24/90	12:20	+0.56
05/24/90	12:30	+0.52
05/24/90	12:40	+0.55
05/24/90	12:50	+0.48
05/24/90	13:00	+0.50
05/24/90	13:10	+0.45
05/24/90	13:20	+0.36
05/24/90	13:30	+0.33
05/24/90	13:40	+0.36
05/24/90	13:50	+0.28
05/24/90	14:00	+0.21
05/24/90	14:10	+0.17
05/24/90	14:20	+0.08
05/24/90	14:30	+0.10
05/24/90	14:40	+0.05
05/24/90	14:50	-0.05
05/24/90	15:00	-0.06
05/24/90	15:10	-0.08
05/24/90	15:20	-0.18
05/24/90	15:30	-0.22
05/24/90	15:40	-0.31
05/24/90	15:50	-0.39
05/24/90	16:00	-0.43
05/24/90	16:10	-0.45
05/24/90	16:20	-0.59
05/24/90	16:30	-0.61
05/24/90	16:40	-0.66
05/24/90	16:50	-0.75
05/24/90	17:00	-0.72
05/24/90	17:10	-0.82
05/24/90	17:20	-0.93
05/24/90	17:30	-1.03
05/24/90	17:40	-1.03
05/24/90	17:50	-1.12
05/24/90	18:00	-1.17
05/24/90	18:10	-0.99
05/24/90	18:20	-1.18
05/24/90	18:30	-1.12
05/24/90	18:40	-1.19
05/24/90	18:50	-1.45
05/24/90	19:00	-1.27
05/24/90	19:10	-1.37
05/24/90	19:20	-1.30
05/24/90	19:30	-1.39
05/24/90	19:40	-1.33
05/24/90	19:50	-1.30
05/24/90	20:00	-1.29
05/24/90	20:10	-1.27
05/24/90	20:20	-1.37
05/24/90	20:30	-1.23
05/24/90	20:40	-1.39
05/24/90	20:50	-1.34
05/24/90	21:00	-1.25
05/24/90	21:10	-1.26

(Continued)

Table 1 (Continued)

Date	Time cst	Water-Surface Elevation ft
05/24/90	21:20	-1.26
05/24/90	21:30	-1.21
05/24/90	21:40	-1.20
05/24/90	21:50	-1.12
05/24/90	22:00	-1.03
05/24/90	22:10	-1.02
05/24/90	22:20	-0.95
05/24/90	22:30	-0.85
05/24/90	22:40	-0.80
05/24/90	22:50	-0.75
05/24/90	23:00	-0.71
05/24/90	23:10	-0.59
05/24/90	23:20	-0.51
05/24/90	23:30	-0.46
05/24/90	23:40	-0.35
05/24/90	23:50	-0.27
05/25/90	00:00	-0.21
05/25/90	00:10	-0.16
05/25/90	00:20	-0.08
05/25/90	00:30	+0.05
05/25/90	00:40	+0.09
05/25/90	00:50	+0.10
05/25/90	01:00	+0.23
05/25/90	01:10	+0.23
05/25/90	01:20	+0.31
05/25/90	01:30	+0.40
05/25/90	01:40	+0.48
05/25/90	01:50	+0.51
05/25/90	02:00	+0.66
05/25/90	02:10	+0.65
05/25/90	02:20	+0.65
05/25/90	02:30	+0.74
05/25/90	02:40	+0.78
05/25/90	02:50	+0.79
05/25/90	03:00	+0.87
05/25/90	03:10	+0.95
05/25/90	03:20	+1.04
05/25/90	03:30	+1.11
05/25/90	03:40	+1.14
05/25/90	03:50	+1.15
05/25/90	04:00	+1.23
05/25/90	04:10	+1.27
05/25/90	04:20	+1.23
05/25/90	04:30	+1.25
05/25/90	04:40	+1.32
05/25/90	04:50	+1.31
05/25/90	05:00	+1.35
05/25/90	05:10	+1.36
05/25/90	05:20	+1.33
05/25/90	05:30	+1.32
05/25/90	05:40	+1.32
05/25/90	05:50	+1.36
05/25/90	06:00	+1.34
05/25/90	06:10	+1.31
05/25/90	06:20	+1.35
05/25/90	06:30	+1.36
05/25/90	06:40	+1.33
05/25/90	06:50	+1.36
05/25/90	07:00	+1.39
05/25/90	07:10	+1.39
05/25/90	07:20	+1.30
05/25/90	07:30	+1.31
05/25/90	07:40	+1.36
05/25/90	07:50	+1.25
05/25/90	08:00	+1.24
05/25/90	08:10	+1.21
05/25/90	08:20	+1.22
05/25/90	08:30	+1.15
05/25/90	08:40	+1.12
05/25/90	08:50	+1.18
05/25/90	09:00	+1.18
05/25/90	09:10	+1.22
05/25/90	09:20	+1.20
05/25/90	09:30	+1.20
05/25/90	09:40	+1.26
05/25/90	09:50	+1.15
05/25/90	10:00	+1.15
05/25/90	10:10	+1.09
05/25/90	10:20	+1.10
05/25/90	10:30	+1.08
05/25/90	10:40	+1.02
05/25/90	10:50	+1.02
05/25/90	11:00	+0.98
05/25/90	11:10	+0.95
05/25/90	11:20	+0.93
05/25/90	11:30	+0.94
05/25/90	11:40	+0.96
05/25/90	11:50	+0.91
05/25/90	12:00	+0.83
05/25/90	12:10	+0.82
05/25/90	12:20	+0.85
05/25/90	12:30	+0.81
05/25/90	12:40	+0.74
05/25/90	12:50	+0.67

(Continued)

Table 1 (Continued)

Date	Time cst	Water-Surface Elevation ft
05/25/90	13:00	+0.67
05/25/90	13:10	+0.59
05/25/90	13:20	+0.67
05/25/90	13:30	+0.62
05/25/90	13:40	+0.60
05/25/90	13:50	+0.53
05/25/90	14:00	+0.55
05/25/90	14:10	+0.48
05/25/90	14:20	+0.41
05/25/90	14:30	+0.48
05/25/90	14:40	+0.33
05/25/90	14:50	+0.19
05/25/90	15:00	+0.18
05/25/90	15:10	+0.11
05/25/90	15:20	+0.08
05/25/90	15:30	+0.17
05/25/90	15:40	-0.01
05/25/90	15:50	+0.07
05/25/90	16:00	-0.06
05/25/90	16:10	-0.03
05/25/90	16:20	-0.13
05/25/90	16:30	-0.19
05/25/90	16:40	-0.28
05/25/90	16:50	-0.27
05/25/90	17:00	-0.36
05/25/90	17:10	-0.49
05/25/90	17:20	-0.49
05/25/90	17:30	-0.60
05/25/90	17:40	-0.59
05/25/90	17:50	-0.86
05/25/90	18:00	-0.94
05/25/90	18:10	-0.95
05/25/90	18:20	-1.19
05/25/90	18:30	-1.25
05/25/90	18:40	-1.06
05/25/90	18:50	-1.28
05/25/90	19:00	-1.23
05/25/90	19:10	-1.37
05/25/90	19:20	-1.50
05/25/90	19:30	-1.27
05/25/90	19:40	-1.35
05/25/90	19:50	-1.33
05/25/90	20:00	-1.41
05/25/90	20:10	-1.44
05/25/90	20:20	-1.71
05/25/90	20:30	-1.57
05/25/90	20:40	-1.52
05/25/90	20:50	-1.56
05/25/90	21:00	-1.62
05/25/90	21:10	-1.49
05/25/90	21:20	-1.60
05/25/90	21:30	-1.43
05/25/90	21:40	-1.56
05/25/90	21:50	-1.46
05/25/90	22:00	-1.48
05/25/90	22:10	-1.47
05/25/90	22:20	-1.31
05/25/90	22:30	-1.53
05/25/90	22:40	-1.37
05/25/90	22:50	-1.33
05/25/90	23:00	-1.35
05/25/90	23:10	-1.20
05/25/90	23:20	-1.24
05/25/90	23:30	-1.20
05/25/90	23:40	-1.11
05/25/90	23:50	-1.09
05/26/90	00:00	-1.00
05/26/90	00:10	-0.87
05/26/90	00:20	-0.70
05/26/90	00:30	-0.69
05/26/90	00:40	-0.57
05/26/90	00:50	-0.38
05/26/90	01:00	-0.31
05/26/90	01:10	-0.29
05/26/90	01:20	-0.14
05/26/90	01:30	-0.09
05/26/90	01:40	-0.11
05/26/90	01:50	-0.03
05/26/90	02:00	+0.10
05/26/90	02:10	+0.12
05/26/90	02:20	+0.16
05/26/90	02:30	+0.26
05/26/90	02:40	+0.27
05/26/90	02:50	+0.31
05/26/90	03:00	+0.35
05/26/90	03:10	+0.39
05/26/90	03:20	+0.48
05/26/90	03:30	+0.55
05/26/90	03:40	+0.64
05/26/90	03:50	+0.70
05/26/90	04:00	+0.78
05/26/90	04:10	+0.80
05/26/90	04:20	+0.84
05/26/90	04:30	+0.96

(Continued)

Table 1 (Concluded)

Date	Time cst	Water-Surface Elevation ft	Date	Time cst	Water-Surface Elevation ft
05/26/90	04:40	+0.89	05/26/90	07:00	+1.33
05/26/90	04:50	+1.01	05/26/90	07:10	+1.35
05/26/90	05:00	+1.09	05/26/90	07:20	+1.27
05/26/90	05:10	+1.08	05/26/90	07:30	+1.30
05/26/90	05:20	+1.15	05/26/90	07:40	+1.33
05/26/90	05:30	+1.12	05/26/90	07:50	+1.32
05/26/90	05:40	+1.18	05/26/90	08:00	+1.32
05/26/90	05:50	+1.20	05/26/90	08:10	+1.31
05/26/90	06:00	+1.12	05/26/90	08:20	+1.29
05/26/90	06:10	+1.12	05/26/90	08:30	+1.23
05/26/90	06:20	+1.21	05/26/90	08:40	+1.26
05/26/90	06:30	+1.20	05/26/90	08:50	+1 25
05/26/90	06:40	+1.25	05/26/90	09:00	+1.24
05/26/90	06:50	+1.26	05/26/90	09:10	+1.27

Table 2

Water-Surface Elevation for Station S2.0

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/22/90	10:30	23.1	+0.11
05/22/90	10:40	23.5	+0.05
05/22/90	10:50	24.0	+0.01
05/22/90	11:00	24.4	+0.00
05/22/90	11:10	24.6	−0.02
05/22/90	11:20	24.6	−0.02
05/22/90	11:30	24.7	−0.03
05/22/90	11:40	24.7	−0.05
05/22/90	11:50	24.8	−0.06
05/22/90	12:00	25.0	−0.07
05/22/90	12:10	25.1	−0.09
05/22/90	12:20	25.2	−0.06
05/22/90	12:30	25.2	−0.05
05/22/90	12:40	25.2	−0.00
05/22/90	12:50	22.8	+0.15
05/22/90	13:00	21.9	+0.32
05/22/90	13:10	22.2	+0.43
05/22/90	13:20	21.9	+0.60
05/22/90	13:30	22.0	+0.64
05/22/90	13:40	22.1	+0.71
05/22/90	13:50	22.2	+0.80
05/22/90	14:00	22.1	+0.92
05/22/90	14:10	22.3	+0.82
05/22/90	14:20	22.1	+0.71
05/22/90	14:30	22.4	+0.54
05/22/90	14:40	21.5	+0.32
05/22/90	14:50	20.8	+0.10
05/22/90	15:00	21.3	−0.10
05/22/90	15:10	19.7	−0.24
05/22/90	15:20	18.3	−0.35
05/22/90	15:30	18.1	−0.47
05/22/90	15:40	18.5	−0.55
05/22/90	15:50	17.7	−0.56
05/22/90	16:00	18.3	−0.63
05/22/90	16:10	17.7	−0.68
05/22/90	16:20	17.9	−0.72
05/22/90	16:30	17.7	−0.74
05/22/90	16:40	18.4	−0.80
05/22/90	16:50	18.2	−0.86
05/22/90	17:00	17.6	−0.91
05/22/90	17:10	17.1	−0.95
05/22/90	17:20	17.6	−1.02
05/22/90	17:30	18.0	−1.06
05/22/90	17:40	18.0	−1.14
05/22/90	17:50	18.5	−1.21

(Continued)

Note: Mean water-surface elevation (+2.94 ft) used as datum.

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/22/90	18:00	19.1	-1.28
05/22/90	18:10	18.5	-1.32
05/22/90	18:20	18.2	-1.29
05/22/90	18:30	18.2	-1.24
05/22/90	18:40	18.9	-1.15
05/22/90	18:50	18.5	-1.05
05/22/90	19:00	18.0	-0.94
05/22/90	19:10	17.3	-0.86
05/22/90	19:20	17.1	-0.80
05/22/90	19:30	16.7	-0.80
05/22/90	19:40	16.7	-0.82
05/22/90	19:50	16.7	-0.85
05/22/90	20:00	16.6	-0.86
05/22/90	20:10	16.5	-0.87
05/22/90	20:20	16.5	-0.90
05/22/90	20:30	16.5	-0.91
05/22/90	20:40	16.5	-0.91
05/22/90	20:50	16.6	-0.91
05/22/90	21:00	16.6	-0.93
05/22/90	21:10	16.6	-0.96
05/22/90	21:20	16.6	-0.99
05/22/90	21:30	16.6	-1.00
05/22/90	21:40	16.6	-1.01
05/22/90	21:50	16.7	-1.02
05/22/90	22:00	16.6	-1.03
05/22/90	22:10	16.6	-1.09
05/22/90	22:20	16.7	-1.11
05/22/90	22:30	16.8	-1.09
05/22/90	22:40	16.8	-1.10
05/22/90	22:50	17.0	-1.14
05/22/90	23:00	17.2	-1.18
05/22/90	23:10	17.7	-1.20
05/22/90	23:20	18.1	-1.22
05/22/90	23:30	18.2	-1.22
05/22/90	23:40	18.2	-1.20
05/22/90	23:50	18.1	-1.19
05/23/90	00:00	17.8	-1.18
05/23/90	00:10	17.7	-1.17
05/23/90	00:20	17.9	-1.15
05/23/90	00:30	17.9	-1.13
05/23/90	00:40	17.9	-1.10
05/23/90	00:50	17.9	-1.08
05/23/90	01:00	17.8	-1.05
05/23/90	01:10	17.7	-1.00
05/23/90	01:20	17.7	-0.94
05/23/90	01:30	17.8	-0.89
05/23/90	01:40	17.7	-0.83
05/23/90	01:50	17.9	-0.79
05/23/90	02:00	17.9	-0.75

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	02:10	17.9	-0.71
05/23/90	02:20	17.9	-0.64
05/23/90	02:30	17.8	-0.59
05/23/90	02:40	17.7	-0.53
05/23/90	02:50	19.6	-0.53
05/23/90	03:00	21.8	-0.41
05/23/90	03:10	22.8	-0.37
05/23/90	03:20	23.3	-0.32
05/23/90	03:30	23.5	-0.29
05/23/90	03:40	23.7	-0.28
05/23/90	03:50	23.8	-0.26
05/23/90	04:00	23.8	-0.23
05/23/90	04:10	23.7	-0.21
05/23/90	04:20	23.1	-0.19
05/23/90	04:30	23.2	-0.17
05/23/90	04:40	22.4	-0.15
05/23/90	04:50	21.1	-0.13
05/23/90	05:00	20.1	-0.13
05/23/90	05:10	20.6	-0.10
05/23/90	05:20	19.5	-0.09
05/23/90	05:30	18.4	-0.08
05/23/90	05:40	18.6	-0.08
05/23/90	05:50	18.6	-0.08
05/23/90	06:00	17.9	-0.06
05/23/90	06:10	17.3	-0.04
05/23/90	06:20	16.6	-0.03
05/23/90	06:30	16.6	-0.04
05/23/90	06:40	16.3	-0.04
05/23/90	06:50	16.1	-0.04
05/23/90	07:00	16.1	-0.02
05/23/90	07:10	15.6	+0.00
05/23/90	07:20	15.4	+0.02
05/23/90	07:30	15.2	+0.03
05/23/90	07:40	15.1	+0.06
05/23/90	07:50	15.2	+0.06
05/23/90	08:00	15.1	+0.07
05/23/90	08:10	14.8	+0.07
05/23/90	08:20	14.7	+0.08
05/23/90	08:30	14.5	+0.09
05/23/90	08:40	14.4	+0.08
05/23/90	08:50	14.4	+0.07
05/23/90	09:00	14.1	+0.08
05/23/90	09:10	13.9	+0.09
05/23/90	09:20	13.8	+0.07
05/23/90	09:30	14.0	+0.07
05/23/90	09:40	14.2	+0.07
05/23/90	09:50	15.0	+0.07
05/23/90	10:00	15.3	+0.06
05/23/90	10:10	15.3	+0.07

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	10:20	15.3	+0.08
05/23/90	10:30	15.4	+0.09
05/23/90	10:40	15.3	+0.08
05/23/90	10:50	15.2	+0.07
05/23/90	11:00	15.0	+0.09
05/23/90	11:10	14.9	+0.09
05/23/90	11:20	14.9	+0.07
05/23/90	11:30	14.7	+0.05
05/23/90	11:40	14.6	+0.04
05/23/90	11:50	14.5	+0.02
05/23/90	12:00	17.0	+0.04
05/23/90	12:10	18.7	+0.01
05/23/90	12:20	19.4	+0.00
05/23/90	12:30	19.5	+0.01
05/23/90	12:40	19.4	+0.01
05/23/90	12:50	19.0	+0.00
05/23/90	13:00	18.7	-0.01
05/23/90	13:10	18.5	+0.02
05/23/90	13:20	19.0	+0.06
05/23/90	13:30	18.9	+0.09
05/23/90	13:40	19.5	+0.13
05/23/90	13:50	20.1	+0.15
05/23/90	14:00	20.2	+0.16
05/23/90	14:10	20.2	+0.16
05/23/90	14:20	20.1	+0.15
05/23/90	14:30	20.7	+0.15
05/23/90	14:40	20.9	+0.14
05/23/90	14:50	21.1	+0.13
05/23/90	15:00	21.2	+0.13
05/23/90	15:10	21.0	+0.11
05/23/90	15:20	21.0	+0.08
05/23/90	15:30	21.0	+0.07
05/23/90	15:40	21.0	+0.03
05/23/90	15:50	20.9	+0.03
05/23/90	16:00	20.9	+0.02
05/23/90	16:10	20.8	-0.03
05/23/90	16:20	20.8	-0.07
05/23/90	16:30	20.7	-0.10
05/23/90	16:40	20.6	-0.14
05/23/90	16:50	20.7	-0.16
05/23/90	17:00	20.9	-0.20
05/23/90	17:10	20.7	-0.22
05/23/90	17:20	20.5	-0.27
05/23/90	17:30	20.3	-0.30
05/23/90	17:40	20.1	-0.33
05/23/90	17:50	19.7	-0.35
05/23/90	18:00	19.6	-0.38
05/23/90	18:10	19.4	-0.42
05/23/90	18:20	19.1	-0.44

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	18:30	19.0	-0.46
05/23/90	18:40	19.0	-0.50
05/23/90	18:50	18.8	-0.54
05/23/90	19:00	18.8	-0.57
05/23/90	19:10	18.8	-0.60
05/23/90	19:20	18.9	-0.61
05/23/90	19:30	19.1	-0.59
05/23/90	19:40	19.3	-0.60
05/23/90	19:50	19.3	-0.65
05/23/90	20:00	19.2	-0.69
05/23/90	20:10	19.1	-0.71
05/23/90	20:20	19.1	-0.74
05/23/90	20:30	19.1	-0.75
05/23/90	20:40	19.0	-0.77
05/23/90	20:50	18.9	-0.78
05/23/90	21:00	18.8	-0.82
05/23/90	21:10	18.7	-0.83
05/23/90	21:20	18.6	-0.84
05/23/90	21:30	18.6	-0.85
05/23/90	21:40	18.6	-0.86
05/23/90	21:50	18.6	-0.86
05/23/90	22:00	18.5	-0.86
05/23/90	22:10	18.5	-0.87
05/23/90	22:20	18.3	-0.89
05/23/90	22:30	18.1	-0.87
05/23/90	22:40	18.1	-0.89
05/23/90	22:50	18.2	-0.89
05/23/90	23:00	18.1	-0.89
05/23/90	23:10	18.1	-0.88
05/23/90	23:20	18.1	-0.85
05/23/90	23:30	18.1	-0.83
05/23/90	23:40	17.8	-0.82
05/23/90	23:50	17.5	-0.82
05/24/90	00:00	17.6	-0.80
05/24/90	00:10	18.1	-0.79
05/24/90	00:20	18.4	-0.76
05/24/90	00:30	18.2	-0.73
05/24/90	00:40	17.8	-0.71
05/24/90	00:50	17.7	-0.70
05/24/90	01:00	17.8	-0.67
05/24/90	01:10	17.8	-0.63
05/24/90	01:20	17.6	-0.60
05/24/90	01:30	17.8	-0.55
05/24/90	01:40	17.7	-0.51
05/24/90	01:50	17.4	-0.45
05/24/90	02:00	17.3	-0.39
05/24/90	02:10	17.0	-0.34
05/24/90	02:20	17.0	-0.28
05/24/90	02:30	16.9	-0.22

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	02:40	18.6	-0.17
05/24/90	02:50	20.0	-0.11
05/24/90	03:00	20.4	-0.05
05/24/90	03:10	20.7	+0.00
05/24/90	03:20	20.9	+0.05
05/24/90	03:30	21.1	+0.10
05/24/90	03:40	21.3	+0.13
05/24/90	03:50	21.4	+0.17
05/24/90	04:00	21.5	+0.21
05/24/90	04:10	21.7	+0.25
05/24/90	04:20	21.8	+0.28
05/24/90	04:30	21.8	+0.32
05/24/90	04:40	21.9	+0.36
05/24/90	04:50	21.9	+0.39
05/24/90	05:00	22.0	+0.42
05/24/90	05:10	21.9	+0.45
05/24/90	05:20	22.0	+0.48
05/24/90	05:30	22.3	+0.51
05/24/90	05:40	22.3	+0.55
05/24/90	05:50	22.3	+0.58
05/24/90	06:00	22.3	+0.62
05/24/90	06:10	22.4	+0.67
05/24/90	06:20	22.4	+0.70
05/24/90	06:30	22.4	+0.74
05/24/90	06:40	22.4	+0.77
05/24/90	06:50	22.5	+0.79
05/24/90	07:00	22.5	+0.80
05/24/90	07:10	22.5	+0.84
05/24/90	07:20	22.6	+0.86
05/24/90	07:30	22.7	+0.89
05/24/90	07:40	22.5	+0.92
05/24/90	07:50	22.6	+0.94
05/24/90	08:00	22.6	+0.94
05/24/90	08:10	22.6	+0.95
05/24/90	08:20	22.7	+0.97
05/24/90	08:30	22.7	+0.98
05/24/90	08:40	22.7	+1.00
05/24/90	08:50	22.6	+1.01
05/24/90	09:00	22.7	+1.02
05/24/90	09:10	22.7	+1.04
05/24/90	09:20	22.7	+1.05
05/24/90	09:30	22.7	+1.05
05/24/90	09:40	22.8	+1.03
05/24/90	09:50	22.7	+1.04
05/24/90	10:00	22.7	+1.04
05/24/90	10:10	22.7	+1.04
05/24/90	10:20	22.7	+1.03
05/24/90	10:30	22.7	+1.03
05/24/90	10:40	22.8	+1.03

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	10:50	22.7	+1.02
05/24/90	11:00	22.7	+1.03
05/24/90	11:10	22.7	+1.03
05/24/90	11:20	22.3	+1.02
05/24/90	11:30	22.3	+1.01
05/24/90	11:40	22.2	+1.00
05/24/90	11:50	22.4	+0.99
05/24/90	12:00	22.4	+0.98
05/24/90	12:10	22.6	+0.96
05/24/90	12:20	22.6	+0.95
05/24/90	12:30	22.6	+0.93
05/24/90	12:40	22.6	+0.93
05/24/90	12:50	22.6	+0.92
05/24/90	13:00	22.6	+0.91
05/24/90	13:10	22.6	+0.90
05/24/90	13:20	22.6	+0.88
05/24/90	13:30	22.6	+0.87
05/24/90	13:40	22.6	+0.85
05/24/90	13:50	22.6	+0.83
05/24/90	14:00	22.6	+0.81
05/24/90	14:10	22.5	+0.78
05/24/90	14:20	22.5	+0.76
05/24/90	14:30	22.5	+0.75
05/24/90	14:40	22.5	+0.73
05/24/90	14:50	22.4	+0.70
05/24/90	15:00	22.4	+0.68
05/24/90	15:10	22.4	+0.66
05/24/90	15:20	22.3	+0.63
05/24/90	15:30	22.3	+0.60
05/24/90	15:40	22.2	+0.57
05/24/90	15:50	22.2	+0.54
05/24/90	16:00	22.2	+0.50
05/24/90	16:10	22.2	+0.48
05/24/90	16:20	22.0	+0.44
05/24/90	16:30	22.1	+0.41
05/24/90	16:40	21.5	+0.36
05/24/90	16:50	21.9	+0.36
05/24/90	17:00	21.7	+0.32
05/24/90	17:10	21.6	+0.28
05/24/90	17:20	21.3	+0.26
05/24/90	17:30	21.3	+0.24
05/24/90	17:40	21.0	+0.22
05/24/90	17:50	20.9	+0.18
05/24/90	18:00	20.9	+0.15
05/24/90	18:10	20.7	+0.12
05/24/90	18:20	20.7	+0.10
05/24/90	18:30	20.7	+0.08
05/24/90	18:40	20.4	+0.04
05/24/90	18:50	20.7	+0.02

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	19:00	20.7	+0.01
05/24/90	19:10	20.7	-0.02
05/24/90	19:20	20.7	-0.05
05/24/90	19:30	20.7	-0.07
05/24/90	19:40	20.7	-0.09
05/24/90	19:50	20.7	-0.14
05/24/90	20:00	20.7	-0.17
05/24/90	20:10	20.7	-0.21
05/24/90	20:20	20.7	-0.23
05/24/90	20:30	20.7	-0.26
05/24/90	20:40	20.6	-0.31
05/24/90	20:50	20.6	-0.34
05/24/90	21:00	20.0	-0.38
05/24/90	21:10	20.6	-0.40
05/24/90	21:20	20.5	-0.43
05/24/90	21:30	20.5	-0.46
05/24/90	21:40	20.3	-0.49
05/24/90	21:50	20.5	-0.51
05/24/90	22:00	20.5	-0.52
05/24/90	22:10	20.5	-0.54
05/24/90	22:20	20.5	-0.58
05/24/90	22:30	20.5	-0.59
05/24/90	22:40	20.1	-0.61
05/24/90	22:50	20.4	-0.63
05/24/90	23:00	20.4	-0.64
05/24/90	23:10	20.5	-0.66
05/24/90	23:20	20.4	-0.67
05/24/90	23:30	20.4	-0.69
05/24/90	23:40	20.4	-0.70
05/24/90	23:50	20.4	-0.71
05/25/90	00:00	20.4	-0.71
05/25/90	00:10	20.4	-0.72
05/25/90	00:20	20.3	-0.71
05/25/90	00:30	20.3	-0.70
05/25/90	00:40	20.7	-0.69
05/25/90	00:50	21.0	-0.68
05/25/90	01:00	20.8	-0.64
05/25/90	01:10	20.8	-0.62
05/25/90	01:20	20.6	-0.60
05/25/90	01:30	20.4	-0.57
05/25/90	01:40	19.3	-0.54
05/25/90	01:50	18.5	-0.49
05/25/90	02:00	18.1	-0.47
05/25/90	02:10	19.0	-0.43
05/25/90	02:20	19.9	-0.39
05/25/90	02:30	20.3	-0.34
05/25/90	02:40	20.5	-0.29
05/25/90	02:50	20.5	-0.23
05/25/90	03:00	20.2	-0.20

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	03:10	20.3	-0.14
05/25/90	03:20	20.3	-0.08
05/25/90	03:30	20.1	-0.01
05/25/90	03:40	19.6	+0.04
05/25/90	03:50	17.5	+0.12
05/25/90	04:00	17.8	+0.19
05/25/90	04:10	18.1	+0.25
05/25/90	04:20	18.3	+0.29
05/25/90	04:30	18.4	+0.34
05/25/90	04:40	18.7	+0.38
05/25/90	04:50	19.1	+0.42
05/25/90	05:00	19.4	+0.45
05/25/90	05:10	19.8	+0.47
05/25/90	05:20	20.1	+0.50
05/25/90	05:30	20.2	+0.53
05/25/90	05:40	20.2	+0.54
05/25/90	05:50	20.2	+0.57
05/25/90	06:00	20.2	+0.61
05/25/90	06:10	20.3	+0.68
05/25/90	06:20	20.3	+0.72
05/25/90	06:30	20.3	+0.75
05/25/90	06:40	20.3	+0.79
05/25/90	06:50	20.4	+0.81
05/25/90	07:00	20.4	+0.83
05/25/90	07:10	20.4	+0.84
05/25/90	07:20	20.4	+0.85
05/25/90	07:30	20.4	+0.85
05/25/90	07:40	20.4	+0.87
05/25/90	07:50	20.4	+0.88
05/25/90	08:00	20.4	+0.88
05/25/90	08:10	20.4	+0.88
05/25/90	08:20	20.4	+0.90
05/25/90	08:30	20.5	+0.93
05/25/90	08:40	20.5	+0.92
05/25/90	08:50	20.5	+0.95
05/25/90	09:00	20.5	+0.96
05/25/90	09:10	20.5	+0.96
05/25/90	09:20	20.5	+0.96
05/25/90	09:30	20.5	+0.96
05/25/90	09:40	20.5	+0.97
05/25/90	09:50	20.5	+1.00
05/25/90	10:00	20.5	+1.00
05/25/90	10:10	20.6	+1.02
05/25/90	10:20	20.6	+1.02
05/25/90	10:30	20.7	+1.03
05/25/90	10:40	20.7	+1.05
05/25/90	10:50	20.7	+1.06
05/25/90	11:00	20.7	+1.05
05/25/90	11:10	20.6	+1.06

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	11:20	20.8	+1.05
05/25/90	11:30	20.8	+1.05
05/25/90	11:40	20.7	+1.07
05/25/90	11:50	20.7	+1.07
05/25/90	12:00	20.8	+1.08
05/25/90	12:10	20.8	+1.07
05/25/90	12:20	20.8	+1.07
05/25/90	12:30	20.8	+1.06
05/25/90	12:40	20.9	+1.06
05/25/90	12:50	20.8	+1.05
05/25/90	13:00	20.8	+1.06
05/25/90	13:10	20.8	+1.05
05/25/90	13:20	20.8	+1.06
05/25/90	13:30	20.8	+1.04
05/25/90	13:40	20.9	+1.04
05/25/90	13:50	20.7	+1.02
05/25/90	14:00	20.8	+1.03
05/25/90	14:10	20.8	+1.02
05/25/90	14:20	20.8	+1.01
05/25/90	14:30	20.9	+0.99
05/25/90	14:40	20.8	+0.98
05/25/90	14:50	20.9	+0.95
05/25/90	15:00	20.8	+0.90
05/25/90	15:10	21.2	+0.88
05/25/90	15:20	21.2	+0.84
05/25/90	15:30	21.2	+0.81
05/25/90	15:40	21.2	+0.78
05/25/90	15:50	21.1	+0.75
05/25/90	16:00	21.1	+0.70
05/25/90	16:10	21.1	+0.69
05/25/90	16:20	21.2	+0.66
05/25/90	16:30	21.2	+0.64
05/25/90	16:40	21.3	+0.61
05/25/90	16:50	21.3	+0.58
05/25/90	17:00	21.3	+0.55
05/25/90	17:10	21.2	+0.53
05/25/90	17:20	21.1	+0.51
05/25/90	17:30	21.1	+0.49
05/25/90	17:40	21.1	+0.45
05/25/90	17:50	21.1	+0.42
05/25/90	18:00	21.2	+0.41
05/25/90	18:10	21.3	+0.40
05/25/90	18:20	21.4	+0.38
05/25/90	18:30	21.4	+0.36
05/25/90	18:40	21.5	+0.33
05/25/90	18:50	21.5	+0.30
05/25/90	19:00	21.4	+0.27
05/25/90	19:10	21.3	+0.24
05/25/90	19:20	21.3	+0.22

(Continued)

Table 2 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	19:30	21.2	+0.19
05/25/90	19:40	21.1	+0.15
05/25/90	19:50	21.1	+0.12
05/25/90	20:00	21.1	+0.09
05/25/90	20:10	20.4	+0.05
05/25/90	20:20	21.2	+0.03
05/25/90	20:30	21.2	-0.01
05/25/90	20:40	21.2	-0.05
05/25/90	20:50	21.2	-0.08
05/25/90	21:00	21.2	-0.11
05/25/90	21:10	21.3	-0.15
05/25/90	21:20	21.0	-0.17
05/25/90	21:30	21.3	-0.20
05/25/90	21:40	21.3	-0.23
05/25/90	21:50	21.3	-0.25
05/25/90	22:00	21.2	-0.29
05/25/90	22:10	21.2	-0.30
05/25/90	22:20	21.3	-0.34
05/25/90	22:30	21.3	-0.37
05/25/90	22:40	21.3	-0.41
05/25/90	22:50	21.4	-0.43
05/25/90	23:00	21.5	-0.47
05/25/90	23:10	21.5	-0.50
05/25/90	23:20	21.2	-0.52
05/25/90	23:30	21.1	-0.56
05/25/90	23:40	21.0	-0.58
05/25/90	23:50	21.1	-0.61
05/26/90	00:00	21.0	-0.63
05/26/90	00:10	20.2	-0.64
05/26/90	00:20	20.9	-0.68
05/26/90	00:30	20.7	-0.69
05/26/90	00:40	20.9	-0.72
05/26/90	00:50	20.9	-0.71
05/26/90	01:00	20.9	-0.70
05/26/90	01:10	20.8	-0.71
05/26/90	01:20	20.9	-0.72
05/26/90	01:30	20.9	-0.72
05/26/90	01:40	20.8	-0.71
05/26/90	01:50	20.9	-0.72
05/26/90	02:00	20.9	-0.70
05/26/90	02:10	20.9	-0.70
05/26/90	02:20	20.9	-0.68
05/26/90	02:30	21.1	-0.67
05/26/90	02:40	21.1	-0.64
05/26/90	02:50	21.0	-0.62
05/26/90	03:00	21.1	-0.60
05/26/90	03:10	20.3	-0.57
05/26/90	03:20	20.8	-0.51
05/26/90	03:30	21.0	-0.47

(Continued)

Table 2 (Concluded)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/26/90	03:40	21.0	-0.42
05/26/90	03:50	20.8	-0.38
05/26/90	04:00	20.6	-0.31
05/26/90	04:10	20.5	-0.25
05/26/90	04:20	20.2	-0.18
05/26/90	04:30	20.3	-0.10
05/26/90	04:40	20.1	-0.04
05/26/90	04:50	19.9	+0.01
05/26/90	05:00	19.8	+0.06
05/26/90	05:10	19.8	+0.14
05/26/90	05:20	19.4	+0.18
05/26/90	05:30	18.9	+0.23
05/26/90	05:40	18.7	+0.27
05/26/90	05:50	19.5	+0.31
05/26/90	06:00	19.8	+0.35
05/26/90	06:10	19.9	+0.39
05/26/90	06:20	20.0	+0.42
05/26/90	06:30	20.3	+0.43
05/26/90	06:40	20.6	+0.47
05/26/90	06:50	20.8	+0.50
05/26/90	07:00	20.8	+0.53
05/26/90	07:10	20.9	+0.57
05/26/90	07:20	20.9	+0.58
05/26/90	07:30	21.0	+0.60
05/26/90	07:40	21.0	+0.60
05/26/90	07:50	21.0	+0.63
05/26/90	08:00	21.0	+0.65
05/26/90	08:10	21.0	+0.66
05/26/90	08:20	21.1	+0.69
05/26/90	08:30	21.0	+0.71
05/26/90	08:40	21.1	+0.73

Table 3

Water Surface Elevation for Station S3.0

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/22/90	11:30	14.1	+0.05
05/22/90	11:40	15.1	-0.05
05/22/90	11:50	17.3	-0.11
05/22/90	12:00	17.2	-0.12
05/22/90	12:10	14.0	-0.12
05/22/90	12:20	17.0	-0.12
05/22/90	12:30	16.2	-0.11
05/22/90	12:40	15.6	-0.08
05/22/90	12:50	17.5	-0.05
05/22/90	13:00	10.1	+0.08
05/22/90	13:10	9.8	+0.02
05/22/90	13:20	7.3	+0.22
05/22/90	13:30	12.2	+0.19
05/22/90	13:40	10.8	+0.22
05/22/90	13:50	13.1	+0.26
05/22/90	14:00	9.0	+0.34
05/22/90	14:10	15.9	+0.56
05/22/90	14:20	15.4	+0.40
05/22/90	14:30	11.3	+0.31
05/22/90	14:40	16.5	+0.43
05/22/90	14:50	16.8	+0.13
05/22/90	15:00	14.4	-0.17
05/22/90	15:10	16.7	-0.38
05/22/90	15:20	16.8	-0.55
05/22/90	15:30	17.2	-0.60
05/22/90	15:40	17.2	-0.73
05/22/90	15:50	17.7	-1.08
05/22/90	16:00	17.9	-0.97
05/22/90	16:10	17.0	-0.81
05/22/90	16:20	16.2	-0.74
05/22/90	16:30	16.7	-0.84
05/22/90	16:40	17.0	-0.92
05/22/90	16:50	17.8	-1.00
05/22/90	17:00	18.6	-1.00
05/22/90	17:10	19.1	-1.21
05/22/90	17:20	19.2	-1.27
05/22/90	17:30	12.3	-1.09
05/22/90	17:40	12.6	-1.19
05/22/90	17:50	11.9	-1.23
05/22/90	18:00	13.1	-1.32
05/22/90	18:10	10.9	-1.31
05/22/90	18:20	14.6	-1.54
05/22/90	18:30	11.6	-1.30
05/22/90	18:40	10.0	-1.35
05/22/90	18:50	8.8	-1.48

(Continued)

Note: Mean water-surface elevation (+4.58 ft) used as datum.

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/22/90	19:00	10.2	-1.15
05/22/90	19:10	9.9	-1.10
05/22/90	19:20	9.6	-0.91
05/22/90	19:30	11.3	-0.78
05/22/90	19:40	17.0	-1.01
05/22/90	19:50	12.2	-0.96
05/22/90	20:00	9.0	-0.89
05/22/90	20:10	8.0	-1.24
05/22/90	20:20	11.8	-0.96
05/22/90	20:30	10.8	-1.01
05/22/90	20:40	12.7	-0.94
05/22/90	20:50	12.3	-1.19
05/22/90	21:00	11.4	-0.99
05/22/90	21:10	12.4	-0.78
05/22/90	21:20	17.0	-1.04
05/22/90	21:30	12.1	-0.99
05/22/90	21:40	9.9	-0.97
05/22/90	21:50	9.0	-1.08
05/22/90	22:00	10.4	-0.86
05/22/90	22:10	15.0	-1.01
05/22/90	22:20	7.0	-1.20
05/22/90	22:30	9.2	-1.03
05/22/90	22:40	10.2	-1.03
05/22/90	22:50	9.1	-1.03
05/22/90	23:00	9.3	-1.13
05/22/90	23:10	9.6	-1.01
05/22/90	23:20	16.7	-0.88
05/22/90	23:30	15.1	-0.76
05/22/90	23:40	11.4	-1.04
05/22/90	23:50	8.2	-1.01
05/23/90	00:00	12.5	-0.95
05/23/90	00:10	13.1	-0.87
05/23/90	00:20	16.7	-1.17
05/23/90	00:30	13.0	-0.96
05/23/90	00:40	8.7	-0.92
05/23/90	00:50	12.3	-0.89
05/23/90	01:00	9.8	-0.84
05/23/90	01:10	9.1	-0.57
05/23/90	01:20	7.8	-0.58
05/23/90	01:30	10.8	-0.88
05/23/90	01:40	12.3	-0.68
05/23/90	01:50	9.1	-0.63
05/23/90	02:00	9.7	-0.58
05/23/90	02:10	9.4	-0.53
05/23/90	02:20	9.7	-0.54
05/23/90	02:30	10.8	-0.55
05/23/90	02:40	13.9	-0.42
05/23/90	02:50	15.4	-0.33
05/23/90	03:00	15.0	-0.33

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	03:10	13.0	-0.27
05/23/90	03:20	12.2	-0.27
05/23/90	03:30	14.0	-0.15
05/23/90	03:40	12.6	-0.09
05/23/90	03:50	18.0	-0.12
05/23/90	04:00	18.8	-0.09
05/23/90	04:10	19.0	-0.01
05/23/90	04:20	19.0	-0.16
05/23/90	04:30	19.4	-0.15
05/23/90	04:40	19.4	+0.04
05/23/90	04:50	19.5	+0.05
05/23/90	05:00	19.8	-0.14
05/23/90	05:10	20.1	-0 03
05/23/90	05:20	20.5	+0.00
05/23/90	05:30	20.4	+0.08
05/23/90	05:40	20.0	-0.03
05/23/90	05:50	19.8	-0.02
05/23/90	06:00	19.5	-0.04
05/23/90	06:10	19.6	-0.02
05/23/90	06:20	21.0	-0.01
05/23/90	06:30	20.0	-0.00
05/23/90	06:40	20.9	-0.03
05/23/90	06:50	16.7	+0.01
05/23/90	07:00	20.0	-0.00
05/23/90	07:10	19.7	+0.03
05/23/90	07:20	21.0	-0.05
05/23/90	07:30	21.0	-0.04
05/23/90	07:40	18.6	+0.02
05/23/90	07:50	21.2	+0.02
05/23/90	08:00	22.1	+0.01
05/23/90	08:10	22.4	+0.02
05/23/90	08:20	22.3	+0.06
05/23/90	08:30	16.8	+0.19
05/23/90	08:40	20.9	+0.10
05/23/90	08:50	20.1	+0.13
05/23/90	09:00	20.3	+0.08
05/23/90	09:10	20.7	+0.14
05/23/90	09:20	20.0	+0.03
05/23/90	09:30	19.8	+0.12
05/23/90	09:40	17.1	+0.07
05/23/90	09:50	19.4	-0.03
05/23/90	10:00	19.6	+0.05
05/23/90	10:10	19.5	-0.03
05/23/90	10:20	20.1	+0.00
05/23/90	10:30	17.5	-0.07
05/23/90	10:40	18.9	+0.07
05/23/90	10:50	19.5	+0.22
05/23/90	11:00	19.5	+0.15
05/23/90	11:10	19.9	+0.17

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	11:20	19.6	+0.16
05/23/90	11:30	19.6	+0.14
05/23/90	11:40	19.6	+0.14
05/23/90	11:50	19.6	+0.09
05/23/90	12:00	19.6	+0.11
05/23/90	12:10	19.8	-0.05
05/23/90	12:20	14.6	-0.01
05/23/90	12:30	19.2	+0.18
05/23/90	12:40	19.5	+0.06
05/23/90	12:50	18.0	+0.12
05/23/90	13:00	20.0	+0.10
05/23/90	13:10	19.8	+0.06
05/23/90	13:20	19.0	+0.03
05/23/90	13:30	19.3	+0.05
05/23/90	13:40	19.3	+0.07
05/23/90	13:50	20.0	+0.05
05/23/90	14:00	19.9	+0.08
05/23/90	14:10	19.8	+0.11
05/23/90	14:20	19.9	+0.16
05/23/90	14:30	19.4	+0.06
05/23/90	14:40	17.7	+0.11
05/23/90	14:50	19.9	+0.08
05/23/90	15:00	17.1	+0.03
05/23/90	15:10	18.7	+0.03
05/23/90	15:20	18.4	+0.16
05/23/90	15:30	18.2	+0.07
05/23/90	15:40	18.1	+0.04
05/23/90	15:50	16.4	-0.17
05/23/90	16:00	15.4	-0.09
05/23/90	16:10	14.0	-0.08
05/23/90	16:20	16.0	-0.09
05/23/90	16:30	16.9	-0.12
05/23/90	16:40	18.7	-0.18
05/23/90	16:50	15.0	-0.23
05/23/90	17:00	14.0	-0.17
05/23/90	17:10	17.4	-0.22
05/23/90	17:20	19.3	-0.30
05/23/90	17:30	16.6	-0.32
05/23/90	17:40	19.4	-0.40
05/23/90	17:50	17.5	-0.44
05/23/90	18:00	19.1	-0.49
05/23/90	18:10	18.9	-0.58
05/23/90	18:20	19.5	-0.62
05/23/90	18:30	19.0	-0.70
05/23/90	18:40	12.3	-0.69
05/23/90	18:50	10.5	-0.71
05/23/90	19:00	15.2	-0.58
05/23/90	19:10	18.0	-0.60
05/23/90	19:20	12.5	-0.93

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	19:30	15.9	-0.96
05/23/90	19:40	12.5	-0.89
05/23/90	19:50	12.2	-0.81
05/23/90	20:00	10.7	-0.83
05/23/90	20:10	14.5	-0.75
05/23/90	20:20	13.1	-0.38
05/23/90	20:30	16.8	-0.90
05/23/90	20:40	10.7	-0.91
05/23/90	20:50	11.2	-0.94
05/23/90	21:00	14.6	-0.87
05/23/90	21:10	9.3	-0.70
05/23/90	21:20	15.8	-0.88
05/23/90	21:30	10.8	-0.86
05/23/90	21:40	7.1	-1.05
05/23/90	21:50	14.0	-0.90
05/23/90	22:00	12.2	-0.65
05/23/90	22:10	17.7	-1.23
05/23/90	22:20	16.9	-0.96
05/23/90	22:30	9.4	-0.86
05/23/90	22:40	7.5	-0.76
05/23/90	22:50	18.3	-0.63
05/23/90	23:00	19.8	-0.72
05/23/90	23:10	19.7	-0.80
05/23/90	23:20	14.4	-0.69
05/23/90	23:30	17.7	-0.68
05/23/90	23:40	13.9	-0.66
05/23/90	23:50	13.2	-0.64
05/24/90	00:00	15.5	-0.60
05/24/90	00:10	18.8	-0.59
05/24/90	00:20	14.3	-0.51
05/24/90	00:30	18.3	-0.57
05/24/90	00:40	16.9	-0.54
05/24/90	00:50	5.9	-0.49
05/24/90	01:00	17.9	-0.51
05/24/90	01:10	14.5	-0.40
05/24/90	01:20	14.2	-0.41
05/24/90	01:30	6.1	-0.34
05/24/90	01:40	17.8	-0.30
05/24/90	01:50	18.0	-0.27
05/24/90	02:00	14.4	-0.23
05/24/90	02:10	17.8	-0.21
05/24/90	02:20	16.2	-0.13
05/24/90	02:30	18.9	-0.07
05/24/90	02:40	15.5	-0.02
05/24/90	02:50	14.2	+0.02
05/24/90	03:00	13.1	+0.07
05/24/90	03:10	16.6	+0.11
05/24/90	03:20	17.2	+0.16
05/24/90	03:30	19.1	+0.19

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	03:40	17.8	+0.25
05/24/90	03:50	18.8	+0.29
05/24/90	04:00	19.6	+0.30
05/24/90	04:10	19.8	+0.33
05/24/90	04:20	20.4	+0.35
05/24/90	04:30	20.5	+0.37
05/24/90	04:40	19.6	+0.39
05/24/90	04:50	20.6	+0.43
05/24/90	05:00	21.2	+0.43
05/24/90	05:10	20.6	+0.46
05/24/90	05:20	21.1	+0.49
05/24/90	05:30	21.1	+0.49
05/24/90	05:40	21.0	+0.59
05/24/90	05:50	14.7	+0.46
05/24/90	06:00	16.1	+0.65
05/24/90	06:10	16.9	+0.62
05/24/90	06:20	16.0	+0.67
05/24/90	06:30	16.9	+0.66
05/24/90	06:40	18.0	+0.70
05/24/90	06:50	18.9	+0.76
05/24/90	07:00	17.9	+0.78
05/24/90	07:10	17.6	+0.93
05/24/90	07:20	18.2	+0.78
05/24/90	07:30	18.2	+0.83
05/24/90	07:40	17.0	+0.81
05/24/90	07:50	18.4	+0.88
05/24/90	08:00	17.1	+0.89
05/24/90	08:10	17.5	+0.88
05/24/90	08:20	16.8	+0.92
05/24/90	08:30	17.8	+0.93
05/24/90	08:40	17.1	+0.92
05/24/90	08:50	17.2	+0.94
05/24/90	09:00	17.0	+0.94
05/24/90	09:10	17.6	+0.96
05/24/90	09:20	17.0	+0.94
05/24/90	09:30	19.1	+0.99
05/24/90	09:40	17.0	+0.96
05/24/90	09:50	19.4	+0.96
05/24/90	10:00	19.9	+0.96
05/24/90	10:10	19.5	+0.94
05/24/90	10:20	17.0	+0.94
05/24/90	10:30	17.9	+0.93
05/24/90	10:40	15.9	+0.96
05/24/90	10:50	15.3	+0.95
05/24/90	11:00	15.0	+0.95
05/24/90	11:10	15.8	+0.96
05/24/90	11:20	16.0	+0.97
05/24/90	11:30	16.6	+0.94
05/24/90	11:40	15.3	+0.94

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	11:50	12.0	+0.95
05/24/90	12:00	17.5	+0.92
05/24/90	12:10	16.9	+0.90
05/24/90	12:20	14.3	+0.87
05/24/90	12:30	17.2	+0.88
05/24/90	12:40	16.7	+0.88
05/24/90	12:50	17.2	+0.87
05/24/90	13:00	16.7	+0.82
05/24/90	13:10	14.8	+0.83
05/24/90	13:20	17.5	+0.80
05/24/90	13:30	12.4	+0.80
05/24/90	13:40	13.9	+0.79
05/24/90	13:50	12.5	+0.78
05/24/90	14:00	11.8	+0.77
05/24/90	14:10	11.9	+0.77
05/24/90	14:20	13.1	+0.75
05/24/90	14:30	12.3	+0.70
05/24/90	14:40	9.4	+0.71
05/24/90	14:50	11.5	+0.62
05/24/90	15:00	10.4	+0.66
05/24/90	15:10	8.1	+0.66
05/24/90	15:20	9.0	+0.62
05/24/90	15:30	13.0	+0.57
05/24/90	15:40	11.4	+0.56
05/24/90	15:50	9.1	+0.53
05/24/90	16:00	11.4	+0.43
05/24/90	16:10	12.4	+0.42
05/24/90	16:20	9.1	+0.51
05/24/90	16:30	12.9	+0.41
05/24/90	16:40	15.1	+0.38
05/24/90	16:50	14.4	+0.37
05/24/90	17:00	14.5	+0.34
05/24/90	17:10	13.9	+0.31
05/24/90	17:20	12.2	+0.30
05/24/90	17:30	11.8	+0.26
05/24/90	17:40	11.8	+0.25
05/24/90	17:50	13.7	+0.16
05/24/90	18:00	14.3	+0.23
05/24/90	18:10	13.9	+0.21
05/24/90	18:20	14.4	+0.14
05/24/90	18:30	14.6	+0.10
05/24/90	18:40	14.1	+0.06
05/24/90	18:50	13.2	+0.04
05/24/90	19:00	12.3	-0.01
05/24/90	19:10	16.0	-0.05
05/24/90	19:20	13.3	-0.10
05/24/90	19:30	13.8	-0.09
05/24/90	19:40	15.4	-0.12
05/24/90	19:50	14.3	-0.15

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	20:00	13.0	-0.17
05/24/90	20:10	16.2	-0.23
05/24/90	20:20	15.2	-0.20
05/24/90	20:30	13.6	-0.30
05/24/90	20:40	14.1	-0.27
05/24/90	20:50	13.6	-0.29
05/24/90	21:00	16.1	-0.38
05/24/90	21:10	16.6	-0.41
05/24/90	21:20	17.2	-0.52
05/24/90	21:30	17.1	-0.48
05/24/90	21:40	16.8	-0.47
05/24/90	21:50	16.7	-0.57
05/24/90	22:00	13.9	-0.60
05/24/90	22:10	15.8	-0.59
05/24/90	22:20	17.0	-0.60
05/24/90	22:30	16.9	-0.60
05/24/90	22:40	16.4	-0.59
05/24/90	22:50	17.2	-0.63
05/24/90	23:00	17.9	-0.62
05/24/90	23:10	18.2	-0.67
05/24/90	23:20	17.5	-0.71
05/24/90	23:30	18.5	-0.69
05/24/90	23:40	17.1	-0.71
05/24/90	23:50	14.1	-0.66
05/25/90	00:00	15.7	-0.66
05/25/90	00:10	18.3	-0.67
05/25/90	00:20	19.1	-0.63
05/25/90	00:30	19.5	-0.64
05/25/90	00:40	18.1	-0.63
05/25/90	00:50	17.1	-0.55
05/25/90	01:00	14.3	-0.47
05/25/90	01:10	17.4	-0.40
05/25/90	01:20	15.0	-0.39
05/25/90	01:30	16.1	-0.39
05/25/90	01:40	17.6	-0.35
05/25/90	01:50	7.7	-0.26
05/25/90	02:00	4.4	-0.19
05/25/90	02:10	14.6	-0.21
05/25/90	02:20	11.6	-0.13
05/25/90	02:30	14.9	-0.13
05/25/90	02:40	15.3	-0.12
05/25/90	02:50	15.3	-0.08
05/25/90	03:00	17.2	-0.05
05/25/90	03:10	15.3	-0.00
05/25/90	03:20	14.8	+0.06
05/25/90	03:30	13.6	+0.13
05/25/90	03:40	15.6	+0.19
05/25/90	03:50	15.5	+0.22
05/25/90	04:00	16.3	+0.27

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	04:10	13.6	+0.39
05/25/90	04:20	12.6	+0.18
05/25/90	04:30	13.6	+0.47
05/25/90	04:40	14.8	+0.41
05/25/90	04:50	14.6	+0.76
05/25/90	05:00	14.9	+0.56
05/25/90	05:10	15.6	+0.52
05/25/90	05:20	16.4	+0.62
05/25/90	05:30	16.1	+0.57
05/25/90	05:40	17.4	+0.61
05/25/90	05:50	17.0	+0.57
05/25/90	06:00	17.0	+0.59
05/25/90	06:10	16.5	+0.65
05/25/90	06:20	17.9	+0.70
05/25/90	06:30	16.2	+0.69
05/25/90	06:40	15.6	+0.79
05/25/90	06:50	15.6	+0.90
05/25/90	07:00	15.4	+0.71
05/25/90	07:10	17.2	+0.88
05/25/90	07:20	17.5	+0.83
05/25/90	07:30	14.2	+0.89
05/25/90	07:40	15.6	+0.72
05/25/90	07:50	17.9	+0.89
05/25/90	08:00	15.5	+0.83
05/25/90	08:10	15.7	+0.87
05/25/90	08:20	16.5	+0.92
05/25/90	08:30	17.7	+0.92
05/25/90	08:40	14.9	+0.87
05/25/90	08:50	15.4	+0.92
05/25/90	09:00	15.8	+0.91
05/25/90	09:10	16.4	+0.98
05/25/90	09:20	16.6	+1.02
05/25/90	09:30	15.9	+0.95
05/25/90	09:40	16.6	+0.98
05/25/90	09:50	16.1	+1.00
05/25/90	10:00	15.5	+1.01
05/25/90	10:10	16.6	+1.05
05/25/90	10:20	15.8	+1.02
05/25/90	10:30	14.4	+1.02
05/25/90	10:40	16.5	+0.92
05/25/90	10:50	15.9	+1.07
05/25/90	11:00	14.9	+1.04
05/25/90	11:10	14.3	+0.97
05/25/90	11:20	17.0	+1.03
05/25/90	11:30	16.9	+1.02
05/25/90	11:40	12.9	+1.01
05/25/90	11:50	14.1	+1.09
05/25/90	12:00	12.0	+1.06
05/25/90	12:10	13.0	+1.08

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	12:20	16.6	+0.94
05/25/90	12:30	12.3	+1.05
05/25/90	12:40	17.5	+0.98
05/25/90	12:50	13.9	+1.05
05/25/90	13:00	12.4	+1.00
05/25/90	13:10	14.8	+1.05
05/25/90	13:20	13.2	+0.96
05/25/90	13:30	15.0	+0.93
05/25/90	13:40	12.7	+0.96
05/25/90	13:50	12.6	+0.99
05/25/90	14:00	12.0	+0.97
05/25/90	14:10	12.5	+0.97
05/25/90	14:20	12.8	+0.94
05/25/90	14:30	16.6	+0.97
05/25/90	14:40	13.9	+0.93
05/25/90	14:50	13.5	+0.93
05/25/90	15:00	14.4	+0.90
05/25/90	15:10	12.7	+0.84
05/25/90	15:20	13.5	+0.81
05/25/90	15:30	12.2	+0.79
05/25/90	15:40	13.4	+0.75
05/25/90	15:50	13.5	+0.74
05/25/90	16:00	9.7	+0.72
05/25/90	16:10	13.1	+0.66
05/25/90	16:20	13.0	+0.65
05/25/90	16:30	12.2	+0.61
05/25/90	16:40	12.2	+0.63
05/25/90	16:50	12.4	+0.59
05/25/90	17:00	13.5	+0.56
05/25/90	17:10	14.6	+0.51
05/25/90	17:20	15.2	+0.51
05/25/90	17:30	14.3	+0.45
05/25/90	17:40	14.4	+0.46
05/25/90	17:50	15.5	+0.41
05/25/90	18:00	14.8	+0.43
05/25/90	18:10	15.6	+0.30
05/25/90	18:20	14.7	+0.32
05/25/90	18:30	13.6	+0.36
05/25/90	18:40	12.5	+0.31
05/25/90	18:50	11.2	+0.21
05/25/90	19:00	14.1	+0.30
05/25/90	19:10	13.8	+0.27
05/25/90	19:20	14.0	+0.23
05/25/90	19:30	14.8	+0.20
05/25/90	19:40	15.4	+0.16
05/25/90	19:50	13.6	+0.18
05/25/90	20:00	14.6	+0.09
05/25/90	20:10	13.9	+0.07
05/25/90	20:20	15.5	+0.02

(Continued)

Table 3 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	20:30	13.4	-0.06
05/25/90	20:40	13.7	-0.02
05/25/90	20:50	13.9	-0.08
05/25/90	21:00	15.2	-0.06
05/25/90	21:10	13.4	-0.20
05/25/90	21:20	14.7	-0.16
05/25/90	21:30	15.3	-0.15
05/25/90	21:40	15.3	-0.27
05/25/90	21:50	16.2	-0.32
05/25/90	22:00	15.9	-0.32
05/25/90	22:10	15.9	-0.29
05/25/90	22:20	15.5	-0.32
05/25/90	22:30	16.1	-0.34
05/25/90	22:40	16.3	-0.47
05/25/90	22:50	16.6	-0.44
05/25/90	23:00	16.6	-0.44
05/25/90	23:10	16.7	-0.47
05/25/90	23:20	16.8	-0.53
05/25/90	23:30	16.9	-0.51
05/25/90	23:40	16.9	-0.57
05/25/90	23:50	17.1	-0.61
05/26/90	00:00	17.0	-0.66
05/26/90	00:10	17.2	-0.68
05/26/90	00:20	17.4	-0.71
05/26/90	00:30	17.5	-0.71
05/26/90	00:40	17.6	-0.71
05/26/90	00:50	17.8	-0.67
05/26/90	01:00	17.8	-0.69
05/26/90	01:10	17.8	-0.74
05/26/90	01:20	18.0	-0.68
05/26/90	01:30	17.0	-0.64
05/26/90	01:40	17.7	-0.61
05/26/90	01:50	17.9	-0.60
05/26/90	02:00	15.1	-0.57
05/26/90	02:10	16.9	-0.59
05/26/90	02:20	17.7	-0.55
05/26/90	02:30	17.3	-0.51
05/26/90	02:40	16.0	-0.47
05/26/90	02:50	15.7	-0.43
05/26/90	03:00	18.0	-0.42
05/26/90	03:10	16.8	-0.41
05/26/90	03:20	16.3	-0.38
05/26/90	03:30	15.4	-0.32
05/26/90	03:40	17.2	-0.31
05/26/90	03:50	16.3	-0.25
05/26/90	04:00	16.6	-0.18
05/26/90	04:10	17.5	-0.17
05/26/90	04:20	17.5	-0.07
05/26/90	04:30	18.0	+0.01

(Continued)

Table 3 (Concluded)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/26/90	04:40	18.2	+0.07
05/26/90	04:50	18.4	+0.10
05/26/90	05:00	18.6	+0.16
05/26/90	05:10	18.7	+0.21
05/26/90	05:20	18.8	+0.28
05/26/90	05:30	18.5	+0.27
05/26/90	05:40	17.8	+0.38
05/26/90	05:50	16.5	+0.35
05/26/90	06:00	18.7	+0.38
05/26/90	06:10	16.6	+0.41
05/26/90	06:20	16.2	+0.44
05/26/90	06:30	16.3	+0.45
05/26/90	06:40	17.1	+0.61
05/26/90	06:50	16.6	+0.07
05/26/90	07:00	17.1	+0.51
05/26/90	07:10	17.3	+0.53
05/26/90	07:20	17.4	+0.74
05/26/90	07:30	17.9	+0.73
05/26/90	07:40	17.9	+0.69
05/26/90	07:50	18.1	+0.71
05/26/90	08:00	17.0	+0.76
05/26/90	08:10	18.5	+0.85
05/26/90	08:20	16.5	+0.77
05/26/90	08:30	14.7	+0.70

Table 4

Water-Surface Elevation for Station S4.0

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/22/90	12:30	0.0	-3.87
05/22/90	12:40	20.9	-0.21
05/22/90	12:50	20.5	-0.18
05/22/90	13:00	20.5	-0.19
05/22/90	13:10	20.6	-0.26
05/22/90	13:20	20.9	-0.28
05/22/90	13:30	20.7	-0.42
05/22/90	13:40	21.0	-0.55
05/22/90	13:50	21.1	-0.40
05/22/90	14:00	21.2	-0.32
05/22/90	14:10	20.9	-0.00
05/22/90	14:20	21.0	-0.11
05/22/90	14:30	21.4	-0.30
05/22/90	14:40	21.7	-0.63
05/22/90	14:50	21.7	-0.18
05/22/90	15:00	21.6	+0.08
05/22/90	15:10	21.6	-0.01
05/22/90	15:20	21.5	-0.23
05/22/90	15:30	21.4	-0.44
05/22/90	15:40	21.5	-0.47
05/22/90	15:50	19.9	-0.50
05/22/90	16:00	19.7	-0.41
05/22/90	16:10	19.6	-0.39
05/22/90	16:20	19.9	-0.49
05/22/90	16:30	20.0	-0.43
05/22/90	16:40	20.2	-0.55
05/22/90	16:50	20.4	-0.40
05/22/90	17:00	20.5	-0.36
05/22/90	17:10	20.6	-0.35
05/22/90	17:20	20.9	-0.41
05/22/90	17:30	20.8	-0.43
05/22/90	17:40	20.5	-0.20
05/22/90	17:50	20.6	-0.06
05/22/90	18:00	20.7	+0.13
05/22/90	18:10	20.4	+0.11
05/22/90	18:20	20.2	+0.02
05/22/90	18:30	20.3	-0.02
05/22/90	18:40	20.4	-0.06
05/22/90	18:50	20.4	-0.02
05/22/90	19:00	20.2	-0.11
05/22/90	19:10	20.4	-0.11
05/22/90	19:20	20.4	-0.19
05/22/90	19:30	20.4	-0.22
05/22/90	19:40	20.2	-0.20
05/22/90	19:50	20.2	-0.25

(Continued)

Note: Mean water-surface elevation (4.10 ft) used as datum.

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/22/90	20:00	20.0	-0.47
05/22/90	20:10	20.0	-0.06
05/22/90	20:20	20.5	-0.18
05/22/90	20:30	20.7	-0.14
05/22/90	20:40	20.6	-0.02
05/22/90	20:50	20.3	-0.14
05/22/90	21:00	20.4	-0.07
05/22/90	21:10	20.5	-0.09
05/22/90	21:20	20.5	-0.18
05/22/90	21:30	20.4	-0.03
05/22/90	21:40	20.4	-0.43
05/22/90	21:50	20.4	-0.42
05/22/90	22:00	20.4	-0.15
05/22/90	22:10	20.3	-0.09
05/22/90	22:20	20.2	-0.20
05/22/90	22:30	20.2	-0.30
05/22/90	22:40	20.1	-0.26
05/22/90	22:50	20.2	-0.12
05/22/90	23:00	20.1	-0.11
05/22/90	23:10	20.2	+0.01
05/22/90	23:20	20.2	+0.02
05/22/90	23:30	20.2	-1.05
05/22/90	23:40	20.4	-0.17
05/22/90	23:50	20.3	-0.51
05/23/90	00:00	20.4	+0.05
05/23/90	00:10	20.3	-0.22
05/23/90	00:20	20.4	-0.21
05/23/90	00:30	20.0	-0.14
05/23/90	00:40	20.0	-0.26
05/23/90	00:50	20.1	-0.37
05/23/90	01:00	20.1	-0.17
05/23/90	01:10	20.5	-0.09
05/23/90	01:20	20.6	-0.18
05/23/90	01:30	20.7	-0.07
05/23/90	01:40	20.7	-0.31
05/23/90	01:50	20.6	-0.17
05/23/90	02:00	20.6	-0.27
05/23/90	02:10	20.9	-0.31
05/23/90	02:20	20.5	-0.21
05/23/90	02:30	20.5	-0.14
05/23/90	02:40	20.8	-0.15
05/23/90	02:50	21.1	-0.24
05/23/90	03:00	20.7	-0.32
05/23/90	03:10	20.8	-0.44
05/23/90	03:20	21.1	-0.32
05/23/90	03:30	21.7	-0.29
05/23/90	03:40	22.0	-0.29
05/23/90	03:50	22.0	-0.15
05/23/90	04:00	22.0	-0.25

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	04:10	22.1	-0.20
05/23/90	04:20	22.2	-0.30
05/23/90	04:30	22.3	-0.24
05/23/90	04:40	22.3	-0.24
05/23/90	04:50	22.2	-0.03
05/23/90	05:00	22.2	-0.13
05/23/90	05:10	22.1	-0.27
05/23/90	05:20	22.1	-0.17
05/23/90	05:30	22.1	-0.13
05/23/90	05:40	22.1	-0.11
05/23/90	05:50	22.2	-0.19
05/23/90	06:00	22.1	-0.16
05/23/90	06:10	22.1	-0.28
05/23/90	06:20	22.1	-0.30
05/23/90	06:30	22.0	-0.28
05/23/90	06:40	21.9	-0.22
05/23/90	06:50	22.0	-0.17
05/23/90	07:00	22.0	-0.13
05/23/90	07:10	22.1	-0.13
05/23/90	07:20	22.3	-0.63
05/23/90	07:30	22.2	-0.18
05/23/90	07:40	22.2	-0.18
05/23/90	07:50	22.2	-0.04
05/23/90	08:00	22.4	-0.08
05/23/90	08:10	22.4	-0.08
05/23/90	08:20	22.4	-0.06
05/23/90	08:30	22.4	-0.14
05/23/90	08:40	22.4	-0.04
05/23/90	08:50	22.4	-0.11
05/23/90	09:00	22.4	-0.15
05/23/90	09:10	22.3	-0.16
05/23/90	09:20	22.4	-0.07
05/23/90	09:30	22.3	-0.14
05/23/90	09:40	22.4	-0.09
05/23/90	09:50	22.4	-0.12
05/23/90	10:00	22.4	-0.14
05/23/90	10:10	22.5	-0.12
05/23/90	10:20	22.4	-0.14
05/23/90	10:30	22.4	-0.15
05/23/90	10:40	22.4	+0.00
05/23/90	10:50	22.4	+0.03
05/23/90	11:00	22.5	-0.01
05/23/90	11:10	22.3	+0.19
05/23/90	11:20	22.3	-0.04
05/23/90	11:30	22.4	-0.45
05/23/90	11:40	22.3	-0.04
05/23/90	11:50	22.3	-0.11
05/23/90	12:00	22.2	-0.07
05/23/90	12:10	22.1	-0.05

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	12:20	22.2	-0.10
05/23/90	12:30	22.3	+0.01
05/23/90	12:40	22.1	+0.17
05/23/90	12:50	22.2	-0.00
05/23/90	13:00	22.1	+0.18
05/23/90	13:10	22.0	+0.12
05/23/90	13:20	22.0	-0.03
05/23/90	13:30	22.0	-0.11
05/23/90	13:40	22.1	-0.09
05/23/90	13:50	22.0	-0.10
05/23/90	14:00	21.7	-0.09
05/23/90	14:10	21.5	-0.07
05/23/90	14:20	21.7	-0.03
05/23/90	14:30	21.7	-0.06
05/23/90	14:40	21.7	+0.00
05/23/90	14:50	21.6	+0.00
05/23/90	15:00	21.7	+0.27
05/23/90	15:10	21.6	+0.17
05/23/90	15:20	21.6	+0.13
05/23/90	15:30	21.6	+0.19
05/23/90	15:40	21.8	+0.12
05/23/90	15:50	21.7	-0.10
05/23/90	16:00	21.6	-0.06
05/23/90	16:10	21.4	-0.10
05/23/90	16:20	21.5	+0.10
05/23/90	16:30	21.3	-0.11
05/23/90	16:40	21.3	-0.05
05/23/90	16:50	21.2	-0.07
05/23/90	17:00	21.1	-0.07
05/23/90	17:10	21.1	-0.07
05/23/90	17:20	21.1	+0.28
05/23/90	17:30	21.1	+0.06
05/23/90	17:40	21.1	-0.07
05/23/90	17:50	21.1	-0.09
05/23/90	18:00	21.0	-0.12
05/23/90	18:10	20.9	-0.15
05/23/90	18:20	20.8	-0.14
05/23/90	18:30	20.8	-0.13
05/23/90	18:40	20.7	-0.10
05/23/90	18:50	20.7	+0.21
05/23/90	19:00	20.7	+0.22
05/23/90	19:10	20.7	+0.18
05/23/90	19:20	20.8	+0.19
05/23/90	19:30	20.6	-0.28
05/23/90	19:40	20.6	-0.15
05/23/90	19:50	20.4	-0.13
05/23/90	20:00	20.5	+0.07
05/23/90	20:10	20.3	+0.18
05/23/90	20:20	20.3	+0.06

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/23/90	20:30	20.2	+0.18
05/23/90	20:40	20.3	+0.08
05/23/90	20:50	20.2	-0.13
05/23/90	21:00	20.2	+0.10
05/23/90	21:10	20.2	+0.21
05/23/90	21:20	20.1	+0.13
05/23/90	21:30	20.2	+0.10
05/23/90	21:40	20.1	-0.02
05/23/90	21:50	20.1	-0.01
05/23/90	22:00	20.1	+0.13
05/23/90	22:10	20.2	-0.63
05/23/90	22:20	20.2	-0.01
05/23/90	22:30	20.0	-0.10
05/23/90	22:40	19.8	-0.12
05/23/90	22:50	19.9	+0.09
05/23/90	23:00	19.3	+0.17
05/23/90	23:10	19.4	+0.03
05/23/90	23:20	19.4	-0.12
05/23/90	23:30	19.3	-0.27
05/23/90	23:40	19.2	-0.29
05/23/90	23:50	19.2	-0.28
05/24/90	00:00	19.2	-0.30
05/24/90	00:10	19.2	-0.30
05/24/90	00:20	19.3	-0.20
05/24/90	00:30	19.3	-0.15
05/24/90	00:40	19.3	-0.21
05/24/90	00:50	19.3	-0.13
05/24/90	01:00	19.5	-0.13
05/24/90	01:10	19.5	-0.13
05/24/90	01:20	19.5	-0.12
05/24/90	01:30	19.5	-0.16
05/24/90	01:40	19.5	-0.15
05/24/90	01:50	19.6	-0.12
05/24/90	02:00	19.5	-0.10
05/24/90	02:10	19.5	-0.09
05/24/90	02:20	19.4	-0.10
05/24/90	02:30	19.4	-0.08
05/24/90	02:40	19.4	-0.14
05/24/90	02:50	19.4	-0.09
05/24/90	03:00	19.3	-0.05
05/24/90	03:10	19.3	-0.03
05/24/90	03:20	19.3	-0.02
05/24/90	03:30	19.2	-0.06
05/24/90	03:40	19.2	-0.02
05/24/90	03:50	19.2	-0.00
05/24/90	04:00	19.2	-0.01
05/24/90	04:10	19.2	-0.02
05/24/90	04:20	19.1	-0.02
05/24/90	04:30	19.2	+0.01

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	04:40	19.2	+0.01
05/24/90	04:50	19.2	+0.01
05/24/90	05:00	19.2	+0.03
05/24/90	05:10	19.2	+0.00
05/24/90	05:20	19.1	+0.02
05/24/90	05:30	19.1	+0.03
05/24/90	05:40	19.1	+0.04
05/24/90	05:50	19.1	+0.05
05/24/90	06:00	19.1	+0.03
05/24/90	06:10	19.1	+0.07
05/24/90	06:20	19.1	−0.06
05/24/90	06:30	19.2	+0.04
05/24/90	06:40	19.2	+0.10
05/24/90	06:50	19.2	+0.09
05/24/90	07:00	19.2	+0.09
05/24/90	07:10	19.2	+0.11
05/24/90	07:20	19.2	+0.15
05/24/90	07:30	19.2	+0.08
05/24/90	07:40	19.3	+0.14
05/24/90	07:50	19.3	+0.11
05/24/90	08:00	19.3	+0.13
05/24/90	08:10	19.3	+0.14
05/24/90	08:20	19.3	+0.14
05/24/90	08:30	19.4	+0.14
05/24/90	08:40	19.4	+0.16
05/24/90	08:50	19.4	+0.17
05/24/90	09:00	19.4	+0.17
05/24/90	09:10	19.4	+0.16
05/24/90	09:20	19.4	+0.16
05/24/90	09:30	19.4	+0.17
05/24/90	09:40	19.4	+0.16
05/24/90	09:50	19.4	+0.19
05/24/90	10:00	19.4	+0.17
05/24/90	10:10	19.4	+0.17
05/24/90	10:20	19.4	+0.17
05/24/90	10:30	19.5	+0.19
05/24/90	10:40	19.5	+0.20
05/24/90	10:50	19.6	+0.20
05/24/90	11:00	19.6	+0.21
05/24/90	11:10	19.8	+0.20
05/24/90	11:20	19.9	+0.20
05/24/90	11:30	20.0	+0.21
05/24/90	11:40	20.1	+0.22
05/24/90	11:50	20.2	+0.22
05/24/90	12:00	20.2	+0.22
05/24/90	12:10	20.3	+0.22
05/24/90	12:20	20.3	+0.22
05/24/90	12:30	20.3	+0.21
05/24/90	12:40	20.3	+0.20

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	12:50	20.2	+0.19
05/24/90	13:00	20.3	+0.23
05/24/90	13:10	20.2	+0.24
05/24/90	13:20	20.2	+0.23
05/24/90	13:30	20.1	+0.24
05/24/90	13:40	20.2	+0.24
05/24/90	13:50	20.2	+0.26
05/24/90	14:00	20.2	+0.24
05/24/90	14:10	20.0	+0.25
05/24/90	14:20	20.1	+0.22
05/24/90	14:30	20.1	+0.23
05/24/90	14:40	20.0	+0.27
05/24/90	14:50	20.0	+0.25
05/24/90	15:00	20.0	+0.24
05/24/90	15:10	20.0	+0.24
05/24/90	15:20	19.9	+0.23
05/24/90	15:30	20.1	+0.22
05/24/90	15:40	19.9	+0.24
05/24/90	15:50	20.1	+0.23
05/24/90	16:00	20.0	+0.21
05/24/90	16:10	20.0	+0.28
05/24/90	16:20	20.0	+0.29
05/24/90	16:30	20.0	+0.21
05/24/90	16:40	20.0	+0.24
05/24/90	16:50	20.0	+0.25
05/24/90	17:00	20.0	+0.23
05/24/90	17:10	20.1	+0.22
05/24/90	17:20	19.9	+0.19
05/24/90	17:30	20.1	+0.19
05/24/90	17:40	20.1	+0.17
05/24/90	17:50	20.1	+0.15
05/24/90	18:00	20.0	+0.14
05/24/90	18:10	19.9	+0.11
05/24/90	18:20	19.8	+0.14
05/24/90	18:30	19.7	+0.16
05/24/90	18:40	19.6	+0.17
05/24/90	18:50	19.6	+0.16
05/24/90	19:00	19.6	+0.14
05/24/90	19:10	19.5	+0.12
05/24/90	19:20	19.5	+0.12
05/24/90	19:30	19.5	+0.12
05/24/90	19:40	19.5	+0.12
05/24/90	19:50	19.5	+0.14
05/24/90	20:00	19.5	+0.10
05/24/90	20:10	19.5	+0.12
05/24/90	20:20	19.5	+0.12
05/24/90	20:30	19.5	+0.10
05/24/90	20:40	19.5	+0.09
05/24/90	20:50	19.5	+0.10

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/24/90	21:00	19.5	+0.13
05/24/90	21:10	19.5	+0.11
05/24/90	21:20	19.6	+0.09
05/24/90	21:30	19.6	+0.08
05/24/90	21:40	19.6	+0.09
05/24/90	21:50	19.8	+0.08
05/24/90	22:00	19.8	+0.12
05/24/90	22:10	19.8	+0.14
05/24/90	22:20	19.9	+0.12
05/24/90	22:30	19.9	+0.03
05/24/90	22:40	19.9	+0.03
05/24/90	22:50	19.9	-0.00
05/24/90	23:00	19.9	+0.03
05/24/90	23:10	19.9	+0.03
05/24/90	23:20	20.0	+0.01
05/24/90	23:30	20.0	+0.02
05/24/90	23:40	20.0	+0.01
05/24/90	23:50	20.0	+0.00
05/25/90	00:00	20.0	-0.01
05/25/90	00:10	20.0	-0.02
05/25/90	00:20	20.0	-0.04
05/25/90	00:30	19.8	-0.02
05/25/90	00:40	19.5	-0.01
05/25/90	00:50	19.3	-0.00
05/25/90	01:00	18.9	-0.01
05/25/90	01:10	18.6	-0.02
05/25/90	01:20	18.4	-0.02
05/25/90	01:30	18.2	-0.01
05/25/90	01:40	18.1	+0.00
05/25/90	01:50	18.0	+0.00
05/25/90	02:00	17.9	-0.01
05/25/90	02:10	17.7	-0.02
05/25/90	02:20	17.6	-0.02
05/25/90	02:30	17.5	-0.01
05/25/90	02:40	17.7	+0.00
05/25/90	02:50	17.4	-0.01
05/25/90	03:00	17.6	-0.04
05/25/90	03:10	17.2	-0.03
05/25/90	03:20	17.1	-0.03
05/25/90	03:30	17.0	-0.00
05/25/90	03:40	17.9	-0.02
05/25/90	03:50	17.1	-0.01
05/25/90	04:00	17.0	+0.02
05/25/90	04:10	17.0	+0.05
05/25/90	04:20	16.9	+0.11
05/25/90	04:30	17.0	+0.06
05/25/90	04:40	17.0	+0.05
05/25/90	04:50	16.9	-0.39
05/25/90	05:00	16.9	+0.06

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	05:10	16.9	+0.17
05/25/90	05:20	17.0	+0.03
05/25/90	05:30	17.1	+0.16
05/25/90	05:40	17.0	+0.05
05/25/90	05:50	17.2	+0.19
05/25/90	06:00	17.3	+0.07
05/25/90	06:10	17.4	+0.18
05/25/90	06:20	17.5	+0.24
05/25/90	06:30	17.6	+0.11
05/25/90	06:40	17.2	+0.15
05/25/90	06:50	17.5	+0.11
05/25/90	07:00	17.8	+0.11
05/25/90	07:10	17.8	+0.17
05/25/90	07:20	17.8	+0.19
05/25/90	07:30	17.9	+0.17
05/25/90	07:40	18.0	+0.17
05/25/90	07:50	18.0	−0.32
05/25/90	08:00	18.2	+0.17
05/25/90	08:10	18.3	+0.15
05/25/90	08:20	18.4	+0.20
05/25/90	08:30	18.4	+0.17
05/25/90	08:40	18.5	+0.06
05/25/90	08:50	18.6	+0.21
05/25/90	09:00	18.7	+0.18
05/25/90	09:10	18.7	+0.22
05/25/90	09:20	18.8	+0.26
05/25/90	09:30	18.9	+0.22
05/25/90	09:40	18.9	+0.22
05/25/90	09:50	19.1	+0.21
05/25/90	10:00	19.2	+0.21
05/25/90	10:10	19.2	+0.24
05/25/90	10:20	19.3	+0.23
05/25/90	10:30	19.3	+0.29
05/25/90	10:40	19.3	+0.28
05/25/90	10:50	19.4	+0.26
05/25/90	11:00	19.4	+0.27
05/25/90	11:10	19.5	+0.21
05/25/90	11:20	19.3	−0.39
05/25/90	11:30	19.6	+0.33
05/25/90	11:40	19.6	+0.26
05/25/90	11:50	19.5	+0.25
05/25/90	12:00	19.5	+0.25
05/25/90	12:10	19.6	+0.26
05/25/90	12:20	19.5	+0.26
05/25/90	12:30	19.5	+0.22
05/25/90	12:40	19.4	+0.32
05/25/90	12:50	19.4	+0.21
05/25/90	13:00	19.2	+0.25
05/25/90	13:10	19.3	+0.27

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	13:20	19.1	+0.31
05/25/90	13:30	19.0	+0.31
05/25/90	13:40	19.0	+0.29
05/25/90	13:50	19.0	+0.33
05/25/90	14:00	18.8	+0.29
05/25/90	14:10	18.9	+0.31
05/25/90	14:20	18.9	+0.29
05/25/90	14:30	19.0	+0.31
05/25/90	14:40	18.9	+0.28
05/25/90	14:50	18.9	+0.29
05/25/90	15:00	18.9	+0.29
05/25/90	15:10	18.8	+0.30
05/25/90	15:20	18.9	+0.31
05/25/90	15:30	18.9	+0.31
05/25/90	15:40	18.8	+0.31
05/25/90	15:50	18.9	+0.29
05/25/90	16:00	18.8	+0.27
05/25/90	16:10	18.8	+0.32
05/25/90	16:20	18.7	+0.33
05/25/90	16:30	18.8	+0.29
05/25/90	16:40	18.6	+0.30
05/25/90	16:50	18.7	+0.31
05/25/90	17:00	18.7	+0.28
05/25/90	17:10	18.6	+0.33
05/25/90	17:20	18.7	+0.30
05/25/90	17:30	18.6	+0.27
05/25/90	17:40	18.6	+0.27
05/25/90	17:50	18.6	+0.25
05/25/90	18:00	18.5	+0.29
05/25/90	18:10	18.6	-0.11
05/25/90	18:20	18.5	+0.26
05/25/90	18:30	18.5	+0.24
05/25/90	18:40	18.5	+0.22
05/25/90	18:50	18.5	+0.25
05/25/90	19:00	18.7	+0.24
05/25/90	19:10	18.7	+0.24
05/25/90	19:20	18.7	+0.22
05/25/90	19:30	18.7	+0.19
05/25/90	19:40	18.7	+0.21
05/25/90	19:50	18.8	+0.21
05/25/90	20:00	18.7	+0.19
05/25/90	20:10	18.7	+0.20
05/25/90	20:20	18.9	+0.16
05/25/90	20:30	18.8	+0.17
05/25/90	20:40	18.9	+0.17
05/25/90	20:50	18.8	+0.17
05/25/90	21:00	18.8	+0.11
05/25/90	21:10	18.7	+0.05
05/25/90	21:20	18.8	+0.11

(Continued)

Table 4 (Continued)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/25/90	21:30	18.8	-0.02
05/25/90	21:40	18.8	+0.16
05/25/90	21:50	18.8	+0.14
05/25/90	22:00	18.8	+0.08
05/25/90	22:10	18.8	+0.20
05/25/90	22:20	18.7	+0.10
05/25/90	22:30	18.6	+0.06
05/25/90	22:40	18.8	+0.11
05/25/90	22:50	18.6	+0.11
05/25/90	23:00	18.7	+0.08
05/25/90	23:10	18.8	+0.08
05/25/90	23:20	18.8	+0.06
05/25/90	23:30	18.8	+0.07
05/25/90	23:40	18.8	+0.07
05/25/90	23:50	18.8	+0.07
05/26/90	00:00	18.8	+0.08
05/26/90	00:10	18.8	+0.05
05/26/90	00:20	18.8	+0.02
05/26/90	00:30	18.8	+0.01
05/26/90	00:40	18.9	+0.03
05/26/90	00:50	19.1	+0.03
05/26/90	01:00	19.0	+0.02
05/26/90	01:10	19.1	+0.02
05/26/90	01:20	19.0	+0.03
05/26/90	01:30	19.4	-0.00
05/26/90	01:40	19.6	+0.01
05/26/90	01:50	19.2	+0.02
05/26/90	02:00	19.7	-0.00
05/26/90	02:10	19.6	+0.01
05/26/90	02:20	19.5	+0.00
05/26/90	02:30	19.5	+0.01
05/26/90	02:40	19.4	-0.01
05/26/90	02:50	19.3	-0.01
05/26/90	03:00	19.2	-0.01
05/26/90	03:10	18.9	-0.01
05/26/90	03:20	18.9	-0.01
05/26/90	03:30	19.2	-0.02
05/26/90	03:40	19.2	-0.02
05/26/90	03:50	18.4	-0.02
05/26/90	04:00	18.8	-0.01
05/26/90	04:10	18.3	-0.02
05/26/90	04:20	18.1	-0.00
05/26/90	04:30	17.8	-0.00
05/26/90	04:40	17.5	-0.01
05/26/90	04:50	17.3	+0.03
05/26/90	05:00	17.1	+0.04
05/26/90	05:10	17.1	+0.09
05/26/90	05:20	17.2	+0.07
05/26/90	05:30	17.2	-0.66

(Continued)

Table 4 (Concluded)

Date	Time CST	Salinity ppt	Water-Surface Elevation, ft
05/26/90	05:40	16.9	+0.10
05/26/90	05:50	16.9	+0.08
05/26/90	06:00	17.1	+0.08
05/26/90	06:10	16.9	+0.06
05/26/90	06:20	16.9	+0.08
05/26/90	06:30	17.0	+0.12
05/26/90	06:40	16.9	−0.07
05/26/90	06:50	17.6	+0.16
05/26/90	07:00	17.3	+0.11
05/26/90	07:10	17.0	+0.15
05/26/90	07:20	17.2	+0.13
05/26/90	07:30	17.1	+0.29
05/26/90	07:40	17.3	+0.14
05/26/90	07:50	17.5	+0.11
05/26/90	08:00	17.5	+0.10

Table 5

Current Data Observed at R1.0A

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0609	3.0	2.6	122
0701		2.4	120
0801		2.0	120
0901		1.5	123
1001		1.2	113
1101		0.4	125
1201		0.2	342
1302		0.6	302
1402		1.3	310
1502		1.5	308
1602		1.7	300
1701		1.8	302
1801		2.3	302
1901		2.5	301
2002		2.7	298
2102		2.7	300
2202		2.4	308
2301		2.3	306
0002		2.2	318
0101		1.0	300
0202		0.6	140
0302		3.1	126
0402		2.9	128
0502		2.6	122
0602		2.8	121
0701		2.8	120
		Middepth	
0609	8.1	2.4	121
0700	8.3	2.1	126
0801	8.1	2.0	125
0901	8.2	1.4	124
1000	8.3	1.2	124
1100	9.0	1.0	129
1201	10.3	0.8	125
1301	8.5	0.2	106
1402	8.5	0.7	304
1501	8.8	0.6	316
1601	8.3	0.9	306
1701	8.3	1.4	300
1800	8.5	1.9	308
1900	8.4	2.5	306

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 5 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2001	8.6	2.7	302
2101	8.3	2.6	302
2201	8.4	2.7	312
2301	8.5	2.6	309
0002	7.8	1.9	310
0101	7.8	1.2	330
0201	8.2	0.7	143
0301	8.2	1.8	128
0401	8.3	2.5	130
0501	8.4	2.3	124
0601	8.7	2.6	120
0701	8.5	2.6	122
		Bottom†	
0608	14.2	2.0	126
0700	14.5	1.4	124
0800	14.2	1.3	126
0900	14.4	1.1	126
1000	14.6	0.8	120
1100	15.9	0.7	125
1200	18.6	0.4	142
1300	15.0	0.3	102
1401	15.0	0.8	284
1500	15.5	0.9	314
1600	14.6	1.5	312
1700	14.5	1.9	324
1800	15.0	1.7	304
1900	14.8	2.3	310
2000	15.1	2.1	324
2100	14.5	2.2	304
2200	14.7	2.3	292
2300	15.0	1.8	285
0001	13.6	1.9	294
0100	13.6	1.3	330
0200	14.3	0.4	122
0300	14.3	1.2	134
0400	14.6	1.7	126
0500	14.8	1.8	120
0601	15.4	2.2	126
0700	15.0	2.3	120

† Bottom measurement obtained 2 ft above the bed.

Table 6

Current Data Observed at R1.0B

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0640	3.0	2.8	121
0705		2.4	128
0806		2.2	120
1106		0.4	104
1306		0.5	312
1508		1.7	318
1706		2.1	290
1805		2.4	292
1906		2.9	296
2009		2.9	298
2207		2.7	300
0007		2.2	316
0207		0.8	114
0408		3.1	120
0608		3.0	119
		Middepth	
0640	11.4	2.2	120
0704	10.7	2.0	118
0805	11.0	1.9	121
1106	10.8	1.1	130
1306	10.2	0.2	120
1508	10.4	1.3	300
1705	10.5	2.0	304
1805	10.4	2.4	300
1905	10.5	2.7	298
2008	10.3	2.8	298
2206	10.0	2.7	299
0006	9.7	2.0	304
0206	9.5	0.3	140
0407	10.4	2.6	124
0607	10.5	3.1	128
		Bottom†	
0639	20.7	1.6	116
0704	19.3	1.5	124
0805	19.9	1.4	114
1105	19.6	0.9	122
1305	18.4	0.2	101
1507	18.8	1.7	294
1705	19.0	1.7	310

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

† Bottom measurement obtained 2 ft above the bed.

Table 6 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Bottom (Continued)	
1804	18.8	2.4	310
1904	19.0	2.6	304
2007	18.6	2.0	304
2205	17.9	1.9	294
0005	17.4	1.9	290
0205	17.0	0.3	146
0407	18.8	2.2	130
0606	19.0	2.4	124

Table 7

Current Data Observed at R1.0C

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
	Surface**		
0613	3.0	2.6	126
0710	↓	2.4	124
0810		2.0	121
0908		1.4	124
1006		1.2	125
1112		0.3	130
1205		0.4	330
1313		0.5	340
1406		1.2	304
1513		1.9	290
1606		2.2	292
1712		2.4	294
1810		2.8	301
1912		3.1	306
2015		3.2	306
2107		2.8	310
2213		2.6	301
2305		2.6	310
0013		1.9	310
0106		1.4	300
0212		1.3	129
0306		2.7	125
0414		2.8	122
0505		2.4	122
0613		2.3	124
0705	↓	3.1	122
	Middepth		
0613	8.8	2.7	124
0709	8.9	2.1	124
0809	8.9	1.9	125
0907	8.2	1.4	124
1005	7.6	1.4	136
1112	8.6	1.2	120
1205	8.6	0.7	122
1313	8.4	0.6	340
1406	8.3	1.2	292
1513	8.9	1.9	290
1606	8.9	2.2	310
1711	8.8	2.2	302
1809	8.8	2.7	301
1911	8.8	3.2	298

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 7 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2015	8.8	3.0	300
2106	8.6	2.8	300
2213	8.3	2.5	299
2305	7.7	2.4	300
0012	8.5	1.7	304
0105	7.9	1.0	300
0211	8.0	0.8	132
0305	8.3	2.1	123
0414	8.5	2.7	126
0504	8.9	2.4	124
0613	9.1	2.7	128
0704	7.9	2.5	121
		Bottom†	
0613	15.6	2.0	122
0709	15.8	1.7	126
0809	15.7	1.4	128
0907	14.4	1.2	128
1005	15.2	1.2	134
1111	15.2	0.8	130
1204	15.2	0.4	140
1312	14.8	0.2	214
1405	14.6	0.4	210
1512	15.8	1.4	310
1605	15.8	2.0	324
1711	15.5	2.1	326
1809	15.6	2.2	302
1910	15.6	2.5	306
2014	15.6	1.8	300
2105	15.2	1.8	310
2212	14.6	1.8	300
2304	13.4	1.7	300
0012	14.9	1.1	338
0105	13.7	0.4	042
0211	14.0	0.5	140
0305	14.5	1.2	122
0413	14.9	2.2	128
0504	15.8	1.9	126
0612	16.1	2.1	121
0704	15.8	2.3	130

† Bottom measurement obtained 2 ft above the bed.

Table 8

Current Data Observed at R2.0A

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
	Surface**		
0620	3.0	0.2	177
0716		0.7	19
0816		0.3	184
0917		0.7	143
1012		0.5	172
1117		0.4	140
1215		0.8	177
1319		1.2	180
1413		1.5	188
1519		1.5	180
1613		1.1	200
1718		0.2	174
1818		0.6	200
1919		0.2	210
2022		0.1	172
2114		0.1	206
2220		0.2	284
2313		0.1	64
0020		0.2	4
0115		0.3	14
0219		0.7	8
0312		1.3	330
0421		1.0	10
0511		0.6	2
0618		0.7	162
0711		0.5	123
	Middepth		
0619	11.8	0.5	157
0716	12.1	0.5	42
0816	11.8	0.3	359
0917	11.9	0.2	8
1012	11.9	0.1	10
1116	11.9	0.1	56
1214	11.9	0.3	310
1318	11.9	0.2	211
1412	11.9	0.6	160
1519	11.9	0.9	170
1612	11.8	1.4	177
1717	11.7	1.2	180
1818	11.6	1.2	174
1919	11.2	1.1	186

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 8 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2021	11.6	0.8	168
2113	11.4	0.6	176
2219	11.5	0.1	154
2312	11.3	0.3	34
0019	11.4	0.8	359
0114	11.4	1.1	350
0218	11.8	1.1	348
0312	11.7	1.3	356
0420	11.8	2.0	358
0511	12.0	0.7	357
0618	11.8	0.6	342
0711	11.7	0.9	120
		Bottom†	
0619	21.6	0.3	147
0715	22.2	0.4	352
0815	21.6	0.6	331
0916	21.8	0.7	318
1011	21.8	0.5	24
1116	21.7	0.5	330
1213	21.7	0.2	300
1318	21.7	0.2	184
1412	21.7	0.3	150
1518	21.7	0.5	128
1611	21.5	0.7	210
1717	21.4	0.4	191
1817	21.2	0.6	174
1918	20.4	0.5	184
2020	21.1	0.3	151
2112	20.7	0.3	170
2219	20.9	0.4	214
2311	20.5	0.1	120
0018	20.7	0.1	300
0113	20.7	1.1	338
0217	21.6	1.5	346
0311	21.3	1.2	356
0420	21.6	1.5	14
0510	22.0	0.9	359
0617	21.5	1.1	330
0710	21.3	0.9	328

† Bottom measurement obtained 2 ft above the bed.

Table 9

Current Data Observed at R2.0B

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0634	3.0	0.7	14
0723		0.7	341
0822		0.1	278
1122		0.9	190
1325		1.1	173
1525		1.0	214
1724		0.2	114
1825		0.1	208
1924		0.1	150
2027		0.1	240
2230		0.2	240
0027		0.3	350
0230		2.0	342
0427		1.0	26
0627		0.7	2
		Middepth	
0633	12.6	0.5	359
0722	12.2	0.5	350
0821	12.1	0.2	340
1122	12.4	0.1	62
1324	12.1	0.2	200
1525	12.2	1.3	189
1723	12.2	1.3	182
1923	12.1	1.3	183
2027	12.1	0.9	180
2229	11.8	0.2	160
0026	11.5	0.3	330
0230	11.4	1.2	359
0427	11.4	0.7	334
0626	12.1	2.2	344
		Bottom†	
0633	23.2	0.6	326
0722	22.4	1.2	330
0821	22.1	0.4	346
1121	22.8	0.4	22
1323	22.2	0.4	180
1524	22.3	0.9	141
1722	22.3	0.6	182
1823	21.8	0.4	198

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

† Bottom measurement obtained 2 ft above the bed.

Table 9 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Bottom (Continued)	
1923	22.1	0.5	217
2026	22.1	0.3	162
2228	21.5	0.1	180
0025	21.0	0.1	172
0229	20.8	1.1	4
0426	20.8	0.9	351
0625	22.2	1.5	332

Table 10

Current Data Observed at R2.0C

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0624	3.0	1.9	356
0728		0.9	356
0830		1.2	346
0923		0.8	162
1018		0.7	150
1127		0.6	130
1221		0.8	167
1329		1.2	168
1419		1.4	176
1531		0.5	200
1620		0.2	198
1731		0.4	50
1831		0.2	200
1931		0.0	190
2034		0.1	220
2118		0.1	288
2236		0.1	348
2319		0.2	70
0033		0.2	250
0121		0.5	4
0237		2.2	332
0317		2.3	338
0434		2.7	359
0516		2.3	356
0631		2.3	124
0719		2.3	358
		Middepth	
0623	12.0	2.2	354
0728	12.1	1.2	359
0829	10.8	1.2	356
0923	12.2	0.3	322
1018	12.3	0.1	306
1126	12.2	0.1	140
1220	12.3	0.2	206
1329	12.2	0.2	160
1418	12.3	0.4	160
1530	12.1	0.9	162
1619	12.2	1.3	183
1730	11.5	1.3	173
1830	11.9	1.4	187
1930	11.8	1.2	179

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 10 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2033	11.8	0.6	170
2118	11.7	0.5	178
2236	11.6	0.1	240
2318	11.6	0.1	64
0032	11.4	0.2	8
0120	11.0	0.8	352
0237	11.8	1.7	2
0316	11.9	2.0	350
0434	12.1	2.5	350
0515	12.3	2.6	346
0631	12.2	2.3	344
0719	12.5	1.8	358
		Bottom*	
0623	22.0	2.1	354
0727	22.2	0.7	338
0829	19.5	1.1	342
0922	22.4	0.6	352
1017	22.5	0.8	6
1126	22.4	0.3	220
1219	22.6	0.3	210
1328	22.4	0.3	156
1417	22.5	0.5	182
1529	22.2	0.6	178
1618	22.3	0.4	206
1729	21.0	0.3	133
1830	21.7	0.2	187
1929	21.6	0.2	150
2032	21.6	0.3	190
2117	21.3	0.2	180
2235	21.1	0.1	130
2317	21.2	0.2	130
0032	20.7	0.1	56
0120	19.9	0.6	308
0236	21.6	1.2	358
0316	21.8	1.8	354
0433	22.2	2.1	347
0515	22.5	2.4	330
0630	22.4	1.8	322
0718	22.9	1.4	325

* Bottom measurement obtained 2 ft above the bed.

Table 11

Current Data Observed at R3.0A

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0624	3.0	0.2	48
0705		0.0	00
0805		0.4	320
0904		0.0	00
1005		0.2	15
1102		0.0	00
1202		0.0	00
1302		0.1	320
1402		0.3	245
1502		0.3	250
1602		0.3	315
1703		0.0	00
1802		0.3	262
1902		0.4	240
2002		0.7	240
2104		0.4	250
2216		0.1	325
2338		0.0	00
0015		0.6	230
0116		0.2	15
0204		0.4	220
0302		0.1	85
0403		0.1	75
0502		0.7	55
0602		0.4	41
0702		0.2	250
		Middepth	
0602	9.0	0.8	35
0703	7.5	0.2	282
0803	8.0	0.4	335
0902	10.5	0.0	00
1004	8.5	0.3	2
1101	9.5	0.0	00
1201	8.8	0.0	00
1301	10.0	0.4	198
1401	10.0	0.5	240
1501	9.5	1.0	232
1601	8.0	0.6	250
1702	9.5	0.9	210
1801	9.5	0.9	240
1901	9.8	1.4	243

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 11 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2001	9.5	1.1	230
2103	7.0	1.3	255
2215	9.5	0.6	205
2337	7.8	0.6	230
0014	9.2	1.2	235
0115	7.5	0.7	275
0203	9.8	0.3	230
0301	7.0	0.2	88
0402	7.0	0.5	45
0501	7.0	0.6	63
0601	8.2	0.5	40
0701	8.0	0.5	250
		Bottom†	
0600	16.0	0.5	260
0700	13.0	0.2	275
0800	14.0	0.4	330
0900	19.0	0.0	00
1003	15.0	0.2	345
1100	17.0	0.0	00
1200	15.6	0.0	00
1300	18.0	0.0	00
1400	18.0	0.7	220
1500	17.0	1.1	225
1600	14.0	0.8	260
1700	17.0	1.0	220
1800	17.0	0.7	252
1900	17.6	1.1	245
2000	17.0	0.9	170
2102	12.0	1.4	260
2214	17.0	0.8	192
2335	13.6	0.8	220
0013	16.4	1.0	210
0114	13.0	0.5	180
0202	17.6	0.2	215
0300	12.0	0.2	92
0400	12.0	0.5	61
0500	12.0	0.6	95
0600	14.4	0.6	42
0700	14.0	1.2	240

† Bottom measurement obtained 2 ft above the bed.

Table 12

Current Data Observed at R3.0B

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0713	3.0	0.4	70
0910	↓	0.1	51
1108		0.1	35
1308		0.1	29
1507		0.0	00
1709		0.0	00
1907		0.0	00
2108		0.2	245
0122		0.1	240
0308		0.1	95
0506		0.6	63
0711	↓	0.5	58
		Middepth	
0711	10.0	0.8	65
0908	8.0	0.5	45
1106	11.0	0.1	31
1307	10.2	0.0	00
1506	11.0	0.4	218
1708	9.2	0.8	220
1906	10.4	0.6	242
2107	9.7	1.0	240
0121	9.8	0.2	359
0307	10.2	0.4	65
0505	9.8	0.4	65
0710	9.5	0.3	93
		Bottom†	
0709	18.0	0.9	38
0906	14.0	0.6	72
1105	20.0	0.3	65
1305	18.4	0.4	38
1505	20.0	0.2	310
1707	16.4	0.8	250
1905	18.8	0.6	239
2106	17.4	0.7	232
0120	17.6	0.0	00
0306	18.4	0.6	50
0504	17.6	0.7	95
0709	17.0	0.7	40

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

† Bottom measurement obtained 2 ft above the bed

Table 13

Current Data Observed at R3.0C

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0610	3.0	0.1	305
0722	↓	0.3	45
0809		0.6	35
0912		0.1	348
1016		0.3	35
1114		0.2	112
1208		0.0	00
1315		0.0	00
1405		0.1	282
1510		0.4	12
1606		0.0	00
1715		0.0	00
1807		0.1	130
1910		0.2	118
2007		0.0	00
2115		0.1	281
2223		0.0	00
2343		0.3	118
0020		0.1	190
0130		0.0	00
0209		0.0	00
0312		0.5	32
0407		0.5	80
0510		0.7	58
0606		0.5	45
0707	↓	0.4	44
		Middepth	
0609	5.7	0.2	290
0719	7.0	1.1	25
0807	8.4	0.8	35
0911	3.5	0.0	00
1014	8.3	0.6	47
1112	9.0	0.1	60
1206	6.0	0.2	60
1314	5.0	0.0	00
1405	5.0	0.0	00
1509	5.5	0.3	27
1605	6.9	0.1	18
1714	5.5	0.2	32
1806	6.5	0.0	00
1909	7.0	0.0	00

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 13 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2006	6.5	0.0	00
2114	6.0	0.1	265
2222	5.5	0.0	00
2342	5.0	0.0	00
0019	5.0	0.2	225
0129	5.7	0.2	275
0208	6.2	0.1	45
0311	7.5	0.0	00
0406	6.5	0.1	60
0509	8.5	0.3	75
0605	8.0	0.7	56
0706	7.5	0.6	63
		Bottom†	
0607	9.5	0.3	280
0717	12.0	1.1	28
0805	14.8	0.7	295
0911	4.0	0.1	5
1012	14.6	0.7	40
1110	16.0	0.1	268
1205	10.0	0.1	40
1312	8.0	0.0	00
1404	8.0	0.0	00
1508	9.0	0.5	38
1604	11.8	0.0	00
1712	9.0	0.3	42
1805	11.0	0.0	00
1908	12.0	0.2	300
2005	11.0	0.0	00
2113	10.0	0.0	00
2221	9.0	0.0	00
2341	8.0	0.1	190
0018	8.0	0.3	210
0128	9.4	0.3	20
0207	10.4	0.0	00
0312	13.0	0.3	61
0405	11.0	0.2	50
0508	15.0	0.2	205
0604	14.0	0.5	308
0705	13.0	0.5	50

† Bottom measurement obtained 2 ft above the bed.

Table 14

Current Data Observed at R4.0A

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0617	3.0	0.2	352
0729	↓	0.6	10
0815		0.8	335
0915		0.4	342
1023		1.1	15
1120		0.7	340
1214		0.4	355
1319		1.1	343
1410		0.5	25
1514		1.0	350
1610		1.2	8
1718		0.9	360
1811		0.9	355
1918		0.9	18
2015		1.1	5
2121		1.1	35
2230		0.6	342
2347		0.2	330
0024		0.7	350
0136		0.1	188
0214		0.8	25
0318		0.0	00
0412		0.2	165
0519		0.4	20
0611		0.4	215
0718		0.2	150
		Middepth	
0616	7.3	0.1	18
0728	6.5	0.0	00
0813	6.5	0.2	340
0914	7.0	0.1	178
1021	5.3	0.6	328
1118	5.2	0.0	00
1213	4.8	0.3	354
1318	5.0	0.6	335
1409	5.0	0.0	00
1513	6.5	0.2	348
1609	6.6	0.3	355
1717	6.5	0.2	5
1810	6.0	0.7	320
1917	6.5	0.3	190

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 14 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2014	6.0	0.1	120
2120	5.8	0.0	00
2229	4.4	0.8	352
2346	5.0	1.0	345
0023	5.4	1.2	351
0135	4.7	0.1	175
0213	5.3	0.2	275
0317	4.7	0.0	00
0411	4.5	0.2	150
0518	4.5	0.3	141
0610	6.0	0.5	188
0717	5.5	0.3	130
		Bottom†	
0615	12.5	0.0	00
0726	11.0	0.1	330
0811	11.0	0.2	285
0913	12.0	0.2	188
1019	8.6	0.4	320
1116	8.4	0.0	00
1212	7.6	0.0	00
1317	8.0	0.2	260
1408	8.0	0.0	00
1512	11.0	0.0	00
1608	11.2	0.4	11
1716	11.0	0.3	165
1809	10.0	0.0	00
1916	11.0	0.1	210
2013	10.0	0.3	100
2119	9.6	0.3	220
2228	6.8	0.8	352
2345	8.0	1.2	300
0022	8.8	0.9	265
0134	7.4	0.2	330
0212	8.6	0.2	330
0316	7.4	0.0	00
0410	7.0	0.8	165
0517	7.0	0.3	178
0609	10.0	0.3	280
0716	9.0	0.3	165

† Bottom measurement obtained 2 ft above the bed.

Table 15

Current Data Observed at R4.0B

25–26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0739	3.0	0.7	320
0922		1.0	12
1128		0.5	348
1323		0.8	3
1521		1.3	350
1722		1.3	357
1924		1.0	352
2125		1.4	2
0324		0.0	00
0524		0.3	195
0722		0.5	342
		Middepth	
0735	8.5	0.7	180
0921	8.0	0.3	130
1126	8.5	0.3	185
1322	8.0	0.5	178
1520	8.0	0.0	00
1721	8.0	0.1	335
1922	8.0	0.0	00
2124	7.5	0.2	248
0323	6.5	0.7	175
0523	7.8	0.8	200
0721	8.0	0.3	190
		Bottom†	
0733	15.0	0.0	00
0920	14.0	0.7	168
1124	15.0	0.2	175
1321	14.0	0.3	165
1519	14.0	0.3	8
1720	14.0	0.3	348
1921	14.0	0.2	181
2123	13.0	0.4	345
0322	11.0	1.2	188
0522	13.6	0.5	240
0720	14.0	0.3	245

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

† Bottom measurement obtained 2 ft above the bed.

Table 16

Current Data Observed at R4.0C

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0628	3.0	0.3	15
0746		0.7	12
0818		0.7	12
0928		1.0	348
1028		1.0	355
1132		0.2	310
1218		0.4	345
1329		0.8	4
1413		0.7	349
1525		1.0	25
1614		1.0	5
1727		1.2	358
1814		1.1	339
1927		0.9	345
2023		1.2	15
2130		1.2	345
2235		1.2	22
2351		0.8	12
0028		1.0	45
0147		0.8	330
0218		0.4	135
0328		0.3	300
0417		0.1	154
0529		0.7	165
0614		0.2	151
0726		0.2	161
		Middepth	
0623	6.7	0.3	195
0744	7.0	0.4	140
0817	6.7	0.3	185
0926	6.8	0.5	185
1027	7.5	0.2	148
1131	7.2	0.0	00
1217	7.2	0.3	359
1327	7.8	0.1	121
1412	7.0	0.0	00
1524	6.7	0.1	130
1613	7.2	0.0	00
1726	6.5	0.0	00
1813	6.5	0.2	179
1926	6.2	0.0	00

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 16 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2022	6.0	0.0	00
2129	5.7	0.1	290
2234	6.0	0.2	175
2350	6.0	0.1	140
0027	6.3	0.2	210
0146	5.5	0.2	240
0217	7.0	0.5	178
0327	6.7	0.3	230
0416	7.0	0.3	180
0528	6.7	0.6	206
0613	6.5	0.6	165
0725	7.6	0.7	175
		Bottom†	
0619	11.4	0.6	170
0742	12.0	0.3	145
0815	11.4	0.8	142
0925	11.6	0.3	180
1025	13.0	0.2	135
1130	12.4	0.5	160
1216	12.4	0.0	00
1325	11.6	0.0	00
1411	12.0	0.1	5
1523	11.4	0.1	328
1612	12.4	0.2	78
1725	11.0	0.2	20
1812	11.0	0.2	160
1925	10.4	0.0	00
2021	10.0	0.3	180
2128	9.4	0.1	320
2233	10.0	0.4	215
2349	10.0	0.4	120
0026	10.6	0.2	245
0145	9.0	0.4	240
0216	12.0	0.3	105
0326	11.4	0.4	208
0415	12.0	0.2	170
0527	11.4	0.4	212
0612	11.0	0.6	180
0724	13.2	0.4	110

† Bottom measurement obtained 2 ft above the bed.

Table 17

Current Data Observed at R5.0A

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0630	3.0	0.3	260
0704		1.4	254
0807		1.2	270
0901		1.2	265
1001		1.1	270
1101		0.4	275
1201		0.2	290
1301		0.8	270
1403		0.7	270
1506		0.8	255
1603		0.2	270
1706		0.2	259
1801		0.1	58
1901		0.2	58
2001		0.0	280
2101		0.1	40
2221		1.0	295
2301		0.5	300
0001		0.2	340
0102		1.6	280
0203		0.3	230
0301		1.0	40
0402		0.1	55
0502		0.1	290
0601		0.1	359
0702		0.5	320
		Middepth	
0630	9.0	0.2	254
0703	8.0	1.4	268
0807	7.2	1.1	262
0901	6.8	1.1	262
1001	7.3	1.0	285
1101	4.2	0.5	285
1200	4.7	0.4	280
1300	10.4	1.0	290
1403	8.8	1.0	265
1505	9.5	0.8	260
1602	9.2	0.7	260
1702	6.2	0.2	110
1801	6.2	0.1	60
1900	5.6	0.2	70

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 17 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2000	6.0	0.0	270
2100	3.5	0.1	30
2221	10.0	1.0	295
2300	10.3	0.5	335
0000	9.2	0.5	28
0101	10.8	0.7	222
0202	10.1	0.1	40
0301	9.7	1.6	35
0401	8.8	0.3	55
0501	10.7	0.2	350
0600	11.1	0.3	25
0701	12.0	0.2	320
		Bottom†	
0630	6.0	0.1	328
0703	14.0	0.5	290
0806	12.4	1.2	288
0900	11.9	1.1	268
1000	12.6	0.7	308
1100	6.4	0.5	300
1200	7.4	0.2	320
1300	18.7	0.3	310
1400	15.6	0.4	255
1505	17.0	0.4	260
1602	16.4	0.6	232
1705	10.4	0.4	65
1800	10.4	0.0	60
1900	9.2	0.0	98
2000	10.0	0.2	280
2100	5.0	0.1	25
2220	18.0	0.1	90
2300	18.6	0.2	15
0000	16.4	0.5	22
0100	19.6	0.2	342
0200	18.2	0.7	55
0300	17.4	1.0	45
0400	15.6	0.2	52
0500	19.4	0.1	330
0600	20.2	0.2	340
0700	22.0	0.0	290

† Bottom measurement obtained 2 ft above the bed.

Table 18

Current Data Observed at R5.0B

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0707	3.0	0.6	265
0906		1.0	274
1104		1.2	272
1307		0.8	270
1509		0.7	258
1709		0.1	198
1904		0.1	45
2105		1.4	50
2305		1.0	65
0113		2.0	50
0308		1.8	40
0506		0.4	42
0713		0.1	10
		Middepth	
0707	12.3	0.9	270
0906	12.1	1.3	270
1104	12.3	1.0	272
1306	12.0	1.2	282
1508	12.0	1.0	270
1708	11.7	0.4	252
1903	11.9	0.4	25
2105	11.8	1.7	40
2304	11.6	2.0	80
0113	11.7	1.6	60
0308	11.4	2.0	45
0505	11.8	0.6	50
0712	12.0	0.0	330
		Bottom†	
0706	22.7	0.1	254
0905	22.2	0.7	135
1103	22.7	0.6	250
1306	22.0	0.6	242
1508	22.0	0.5	280
1708	21.4	0.2	148
1903	21.8	0.0	12
2104	21.5	1.0	30
2304	21.2	0.8	45
0112	21.4	1.0	60
0304	20.8	1.4	35

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

† Bottom measurement obtained 2 ft above the bed

Table 18 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Bottom (Continued)	
0504	21.6	0.1	50
0706	19.2	0.1	295

Table 19

Current Data Observed at R5.0C

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0634	3.0	0.6	270
0711		0.7	255
0810		1.0	265
0909		0.9	268
1004		1.2	272
1107		1.0	270
1203		0.9	255
1309		0.9	268
1407		0.8	262
1513		0.8	258
1607		0.4	290
1712		0.1	265
1804		0.1	350
1907		0.1	25
2005		0.8	38
2112		1.2	45
2226		3.0	70
2309		3.0	45
0007		3.0	70
0105		3.0	58
0208		2.5	55
0310		1.5	80
0406		0.5	42
0509		0.6	50
0604		0.1	330
0707		0.2	269
		Middepth	
0633	10.7	1.0	270
0710	11.3	0.9	256
0810	11.2	0.8	270
0909	11.6	1.0	268
1003	11.6	0.9	260
1106	11.8	1.0	282
1202	12.1	0.9	280
1309	11.6	1.0	280
1406	11.5	1.0	270
1512	11.7	1.0	266
1606	11.2	0.7	265
1712	11.8	0.3	292
1803	12.1	0.1	359
1906	11.5	0.8	359

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 19 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2004	12.0	1.0	38
2110	11.8	2.2	45
2225	10.8	2.0	45
2308	10.5	3.2	40
0006	11.9	2.6	38
0104	11.4	2.7	55
0207	11.5	2.8	40
0310	12.0	1.5	90
0405	11.3	2.0	35
0508	11.8	1.2	44
0603	11.5	0.8	45
0707	10.6	0.1	232
		Bottom†	
0633	19.4	0.8	272
0710	20.6	0.8	320
0809	20.4	0.8	265
0908	21.2	0.7	270
1003	21.2	0.7	270
1106	21.7	0.4	278
1202	22.2	0.6	242
1308	21.2	0.4	300
1406	21.0	0.8	232
1512	21.4	0.7	270
1606	20.5	0.2	300
1711	21.6	0.1	308
1803	22.2	0.1	2
1906	21.0	0.1	340
2004	22.0	0.5	90
2110	21.6	1.8	20
2225	19.6	1.7	35
2308	19.0	1.6	38
0005	19.8	2.3	30
0104	20.8	2.2	45
0207	21.0	1.7	25
0309	22.0	0.8	5
0404	20.6	0.8	25
0508	21.6	0.6	42
0603	21.0	0.4	25
0706	19.2	0.1	295

† Bottom measurement obtained 2 ft above the bed.

Table 20

Current Data Observed at R6.0A

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0641	3.0	0.3	270
0716		1.8	258
0816		3.1	258
0919		3.0	265
1010		3.0	260
1130		0.7	292
1208		2.0	272
1328		2.2	270
1415		2.0	272
1519		0.3	300
1614		0.2	74
1726		0.2	135
1801		0.1	58
1915		0.8	4
2013		1.1	40
2120		0.5	38
2211		0.7	55
2327		1.5	50
0013		0.8	64
0126		1.7	52
0226		1.5	40
0319		1.0	62
0417		1.0	62
0516		0.4	42
0612		0.4	20
0722		0.4	270
		Middepth	
0640	8.4	0.3	294
0716	8.0	1.6	256
0815	8.5	3.0	270
0919	8.7	2.9	265
1010	8.5	2.6	254
1129	6.9	0.7	292
1208	9.2	2.2	270
1328	7.3	1.8	270
1415	8.4	1.4	270
1518	8.7	0.2	304
1613	8.0	0.1	48
1725	8.5	0.1	135
1812	8.2	0.3	8
1915	9.0	0.3	322

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 20 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
2012	8.3	0.8	35
2120	8.0	0.5	38
2210	8.3	0.6	40
2321	8.0	0.7	52
0012	8.1	0.8	55
0125	8.7	1.2	40
0225	8.5	0.8	22
0319	8.3	1.0	52
0416	8.8	0.6	50
0516	8.9	0.4	30
0611	8.4	0.2	354
0721	7.9	1.2	250
		Bottom†	
0640	14.7	0.0	300
0715	14.0	1.4	250
0815	15.0	1.9	270
0918	15.4	2.4	270
1009	15.0	2.0	280
1128	11.8	0.1	300
1207	16.4	2.2	285
1327	12.6	0.7	285
1413	14.8	1.2	272
1518	15.4	0.2	334
1613	14.0	0.1	112
1725	15.0	0.2	195
1812	14.4	0.1	350
1914	16.0	0.2	270
2012	14.6	0.5	28
2119	14.0	0.6	15
2210	14.6	0.4	15
2320	14.0	0.3	50
0012	14.2	0.8	35
0125	15.4	1.0	15
0225	15.0	0.9	35
0318	14.6	0.6	30
0416	15.6	0.3	5
0515	15.8	0.3	350
0611	14.9	0.4	310
0720	13.9	0.1	359

† Bottom measurement obtained 2 ft above the bed.

Table 21

Current Data Observed at R6.0B

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0719	3.0	2.0	270
0924		1.4	260
1134		1.5	288
1333		1.5	270
1523		1.6	280
1730		0.2	320
1918		0.6	48
2124		1.6	55
2327		1.5	50
0129		2.0	52
0322		2.2	70
0519		1.0	45
0731		0.1	300
		Middepth	
0719	10.7	1.5	272
0923	10.6	1.3	270
1133	10.2	2.0	280
1332	10.1	1.2	280
1523	9.4	1.0	285
1730	10.6	0.1	306
1918	10.7	0.5	54
2123	10.6	2.0	60
2325	10.5	1.5	45
0128	10.6	1.4	40
0321	10.4	1.5	60
0519	10.6	0.8	48
0730	10.2	0.2	300
		Bottom†	
0718	19.3	1.0	240
0922	19.3	1.0	250
1132	18.4	1.2	280
1332	18.2	0.8	245
1522	16.8	0.8	310
1729	19.2	0.1	290
1917	19.4	0.0	50
2123	19.2	0.1	40
2325	19.0	0.8	40
0128	19.1	0.5	45
0321	18.8	0.7	42

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

† Bottom measurement obtained 2 ft above the bed.

Table 21 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Bottom (Continued)	
0518	19.2	0.2	38
0729	18.3	0.3	325

Table 22

Current Data Observed at R6.0C

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0645	3.0	1.6	282
0724		0.5	308
0823		0.6	310
0926		0.8	283
1016		0.7	294
1137		0.8	288
1212		0.8	320
1337		0.4	272
1418		0.7	295
1528		0.8	270
1617		1.4	264
1733		0.2	322
1817		0.2	30
1921		1.2	60
2018		1.6	40
2127		1.8	60
2215		1.7	52
2321		2.2	50
0016		2.0	55
0131		2.0	50
0229		1.6	70
0326		1.4	45
0419		1.0	62
0524		0.5	60
0616		0.4	54
0735		0.2	262
		Middepth	
0644	8.0	1.2	260
0723	7.8	0.1	270
0822	7.8	0.5	302
0926	8.6	0.4	250
1015	8.8	0.7	300
1137	8.9	0.5	260
1212	6.7	0.8	330
1336	8.4	0.4	265
1418	7.7	0.6	270
1527	8.2	0.6	260
1617	9.2	1.2	252
1733	9.4	0.4	270
1817	9.3	0.3	240

(Continued)

* Direction from true north from which the current is flowing.

** Surface measurement obtained 3 ft below the water surface.

Table 22 (Concluded)

Hour CST	Depth ft	Speed fps	Direction deg
		Middepth (Continued)	
1920	8.7	0.7	45
2017	8.4	1.4	25
2127	8.9	2.0	60
2214	8.9	2.0	48
2321	9.0	2.2	40
0015	8.3	1.8	50
0131	8.5	1.8	48
0228	9.5	2.0	60
0325	9.4	1.6	45
0419	9.6	1.2	52
0524	9.8	1.0	45
0615	9.5	0.2	30
0734	8.2	0.5	300
		Bottom†	
0644	14.0	0.4	270
0723	13.6	0.1	320
0822	13.7	0.1	224
0925	15.2	0.1	295
1015	15.6	0.4	300
1136	15.8	0.2	180
1211	11.4	1.0	320
1336	14.8	0.1	105
1417	13.4	0.2	35
1526	14.3	0.5	322
1616	16.4	1.0	242
1732	16.9	0.2	300
1816	16.7	0.4	5
1920	15.4	0.4	90
2017	14.8	0.7	10
2126	15.9	1.4	25
2214	15.8	1.1	50
2330	16.0	1.8	40
0015	14.6	1.9	18
0130	15.0	1.5	40
0228	17.1	1.2	50
0325	16.8	1.4	30
0418	17.2	1.0	55
0523	17.6	0.6	20
0615	17.0	0.1	70
0733	14.4	0.0	308

† Bottom measurement obtained 2 ft above the bed.

Table 23

Current Data Observed at R7.0A

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
	Surface**		
0742	3.0	1.2	282
1035	3.0	1.0	285
1235	3.0	1.6	282
	Middepth		
0742	6.1	1.1	270
1034	5.8	0.6	282
1234	6.4	1.2	280
	Bottom†		
0741	10.3	0.1	240
1034	9.7	0.4	325
1234	10.8	0.6	275

* Direction from true north from which the current is flowing.
** Surface measurement obtained 3 ft below the water surface.
† Bottom measurement obtained 2 ft above the bed.

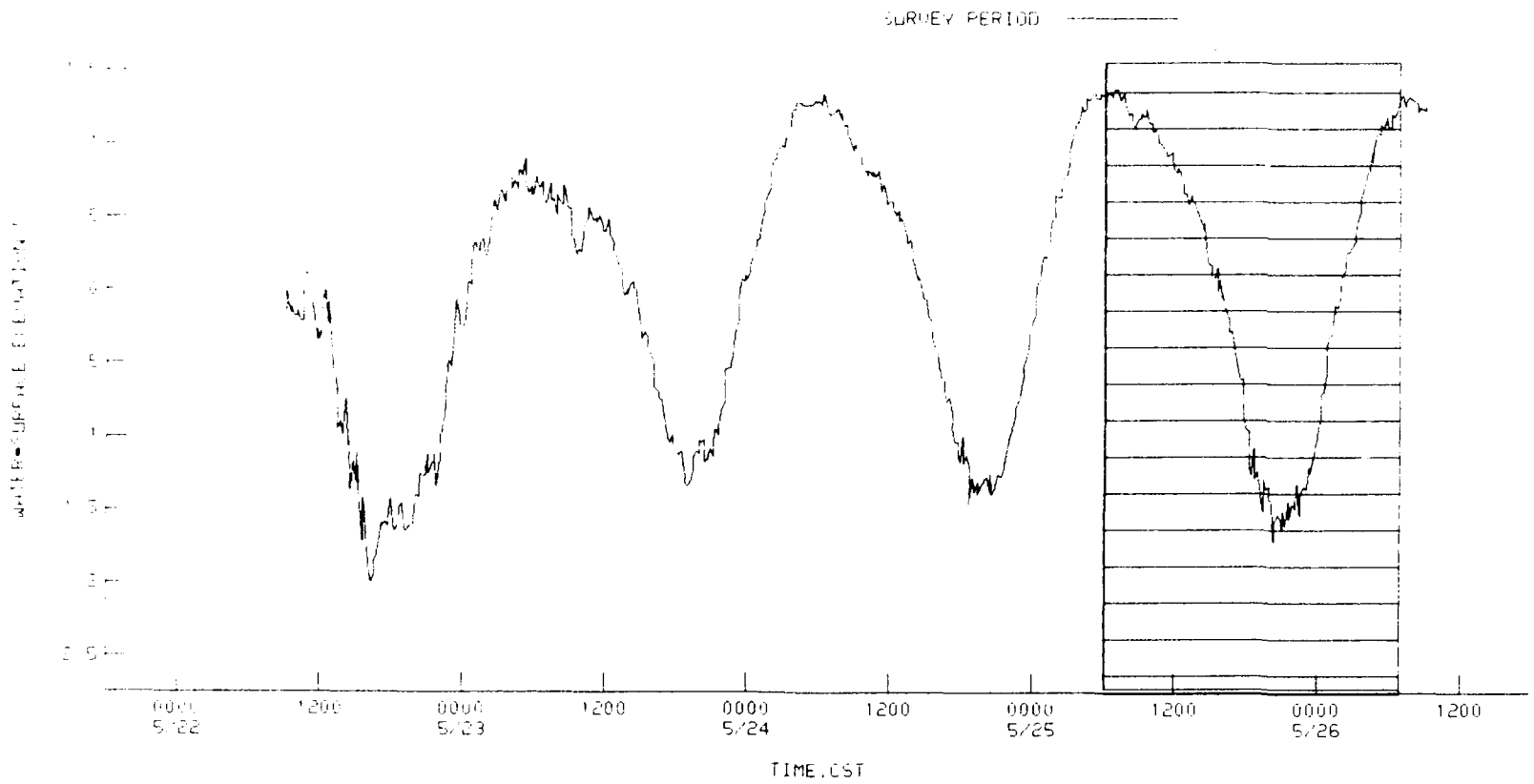
Table 24

Current Data Observed at R7.0C

25-26 May 1990

Hour CST	Depth ft	Speed fps	Direction deg*
		Surface**	
0746	3.0	1.0	272
1038	3.0	1.4	280
1238	3.0	1.7	276
		Middepth	
0745	8.2	1.4	282
1037	8.4	1.2	268
1238	8.2	1.3	268
		Bottom†	
0745	14.4	1.4	278
1037	14.8	0.8	282
1237	14.4	0.8	252

* Direction from true north from which the current is flowing.
** Surface measurement obtained 3 ft below the water surface.
† Bottom measurement obtained 2 ft above the bed.

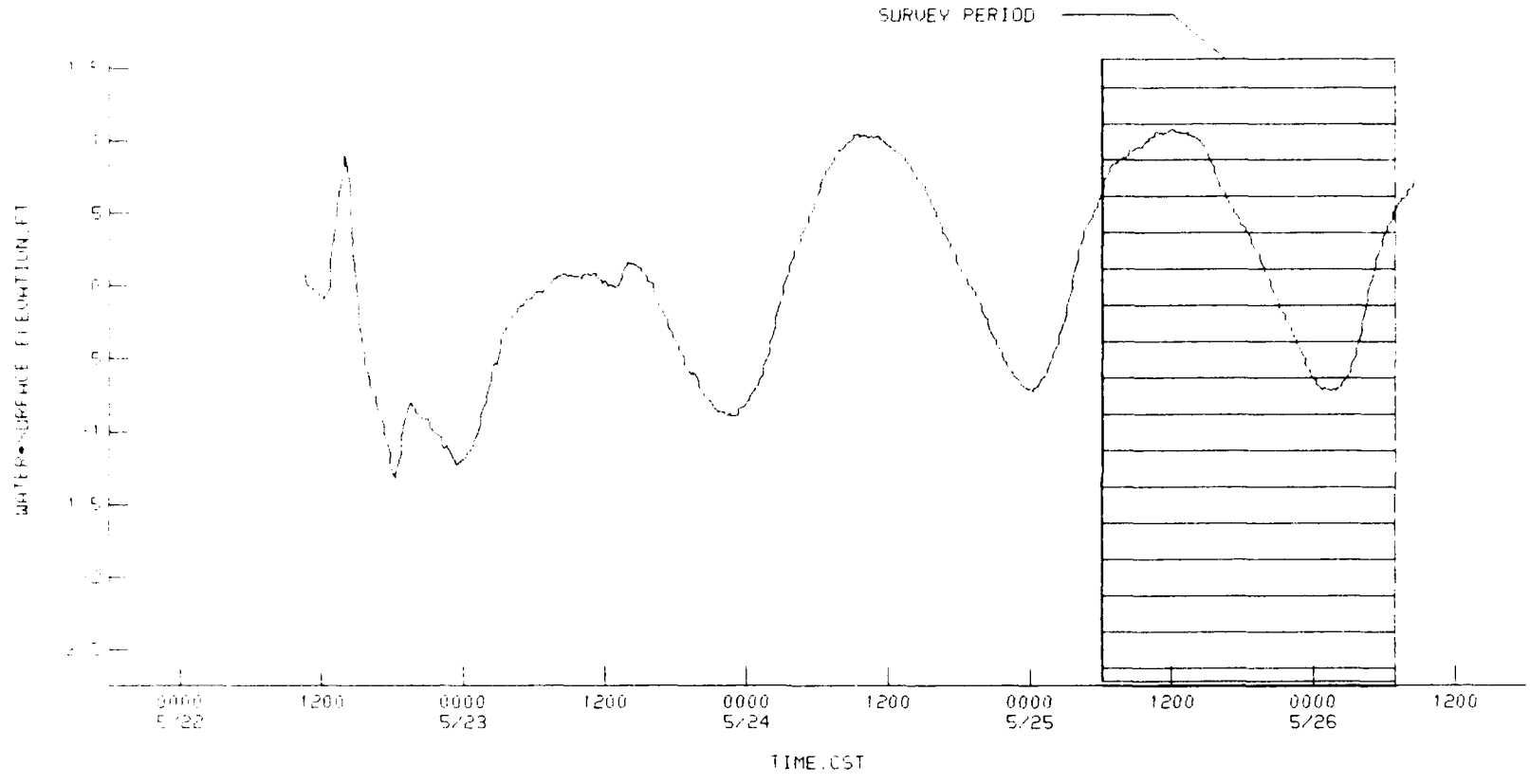


NOTE MEAN WATER LEVEL READING USED AS DATUM

WATER-SURFACE ELEVATION
S1.0
22-26 MAY 1990

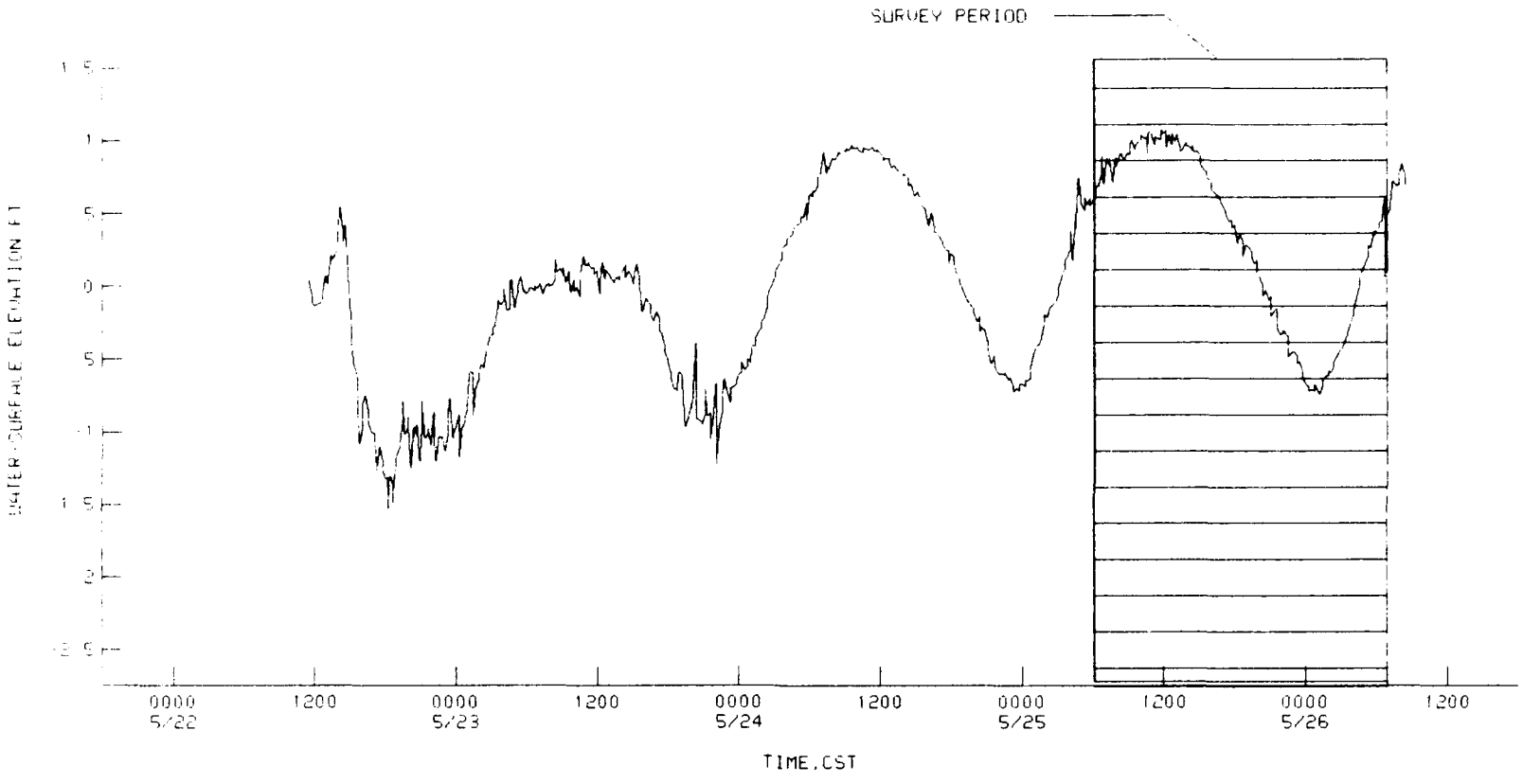
PLATE 1

PLATE 2



NOTE MEAN WATER LEVEL READING USED AS DATUM

WATER-SURFACE ELEVATION
S2.0
22-26 MAY 1990

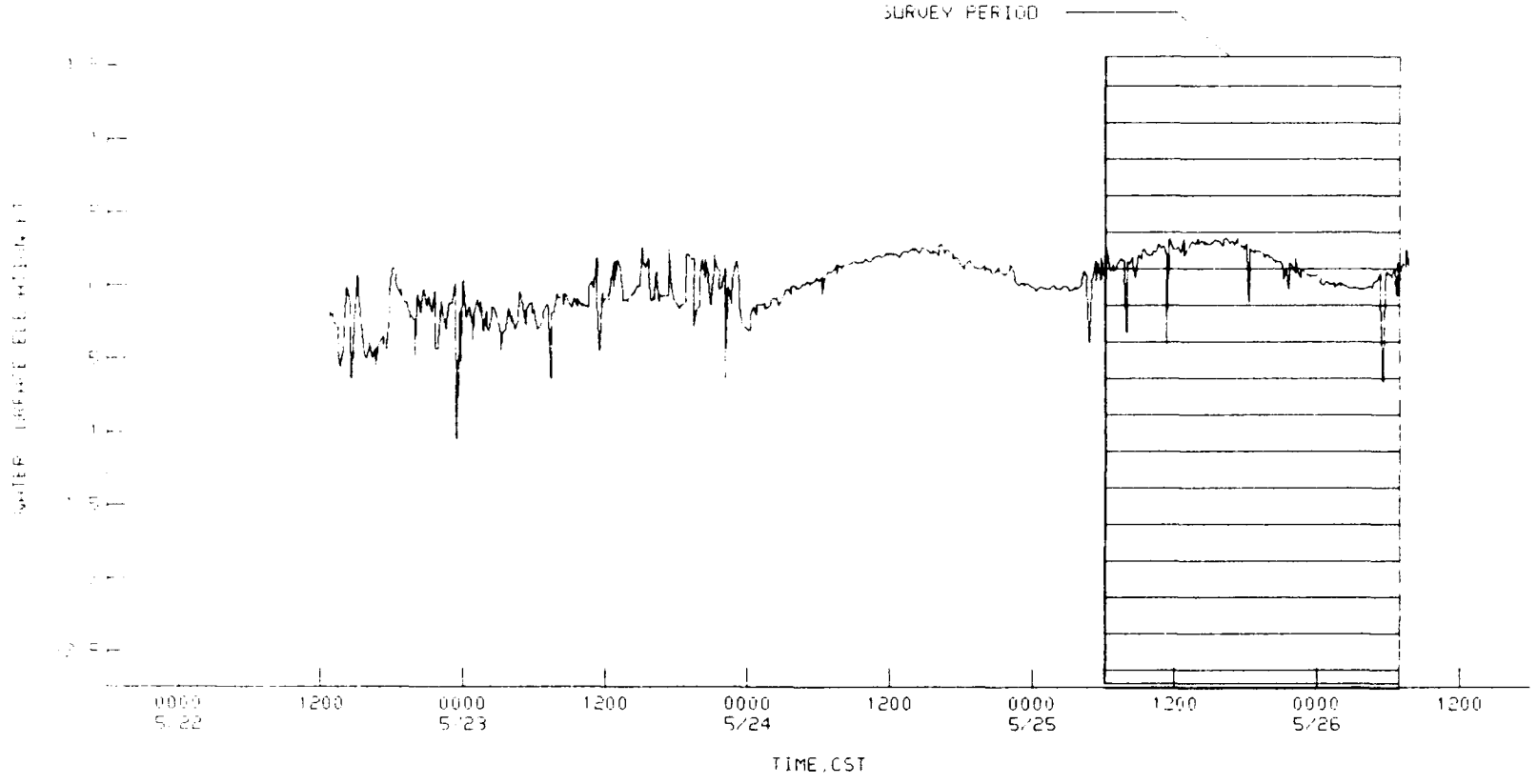


NOTE MEAN WATER LEVEL READING USED AS DATUM

WATER-SURFACE ELEVATION
S3.0
22-26 MAY 1990

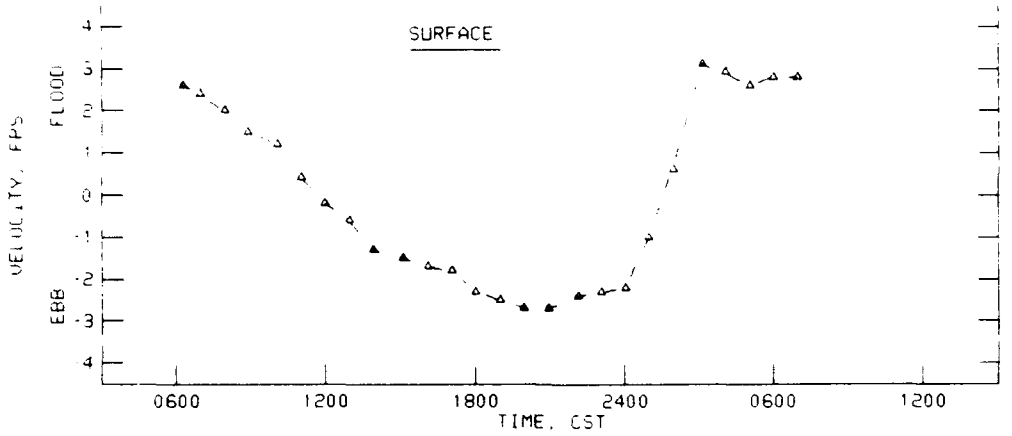
PLATE 3

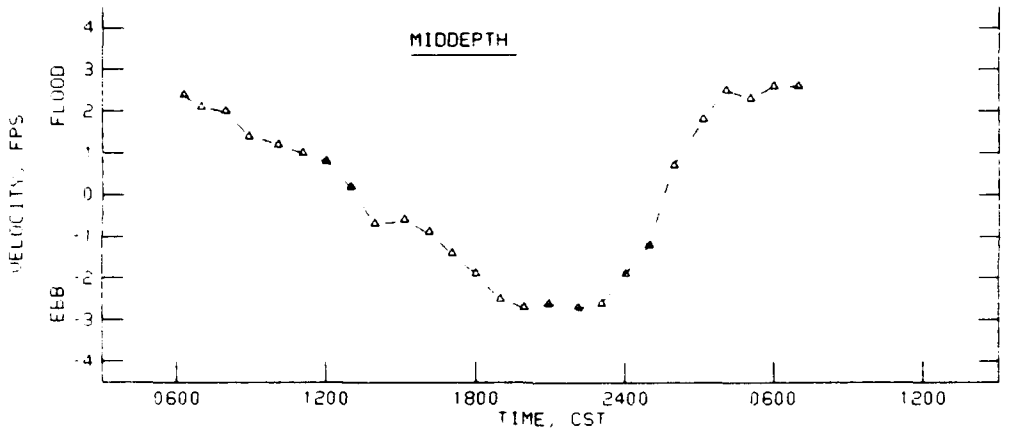
PLATE 4

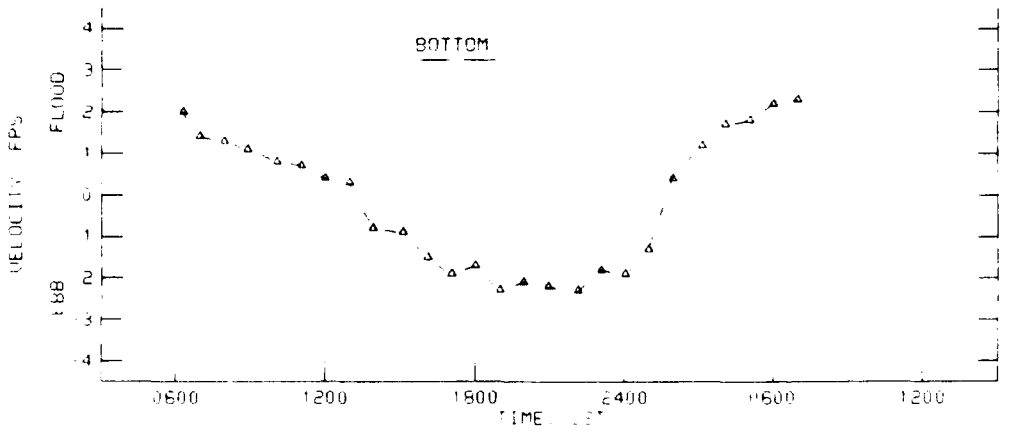


NOTE MEAN WATER LEVEL READING USED AS DATUM

WATER-SURFACE ELEVATION
S4.0
22-26 MAY 1990



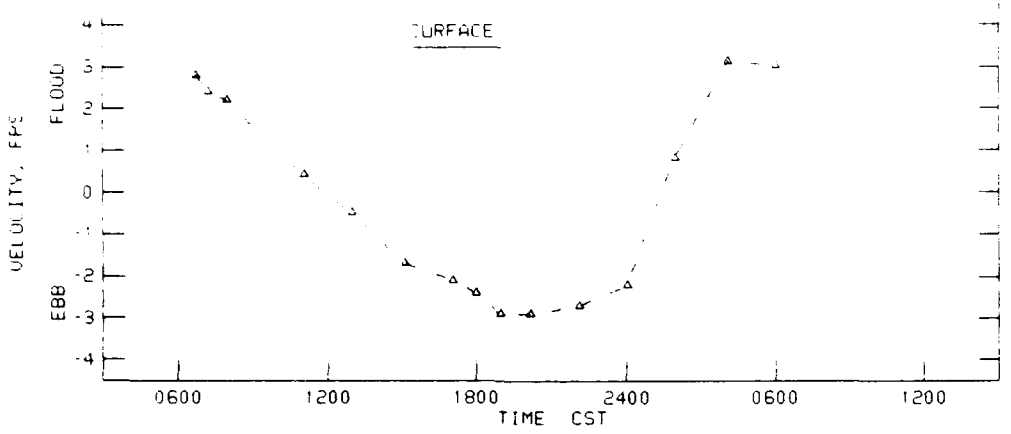


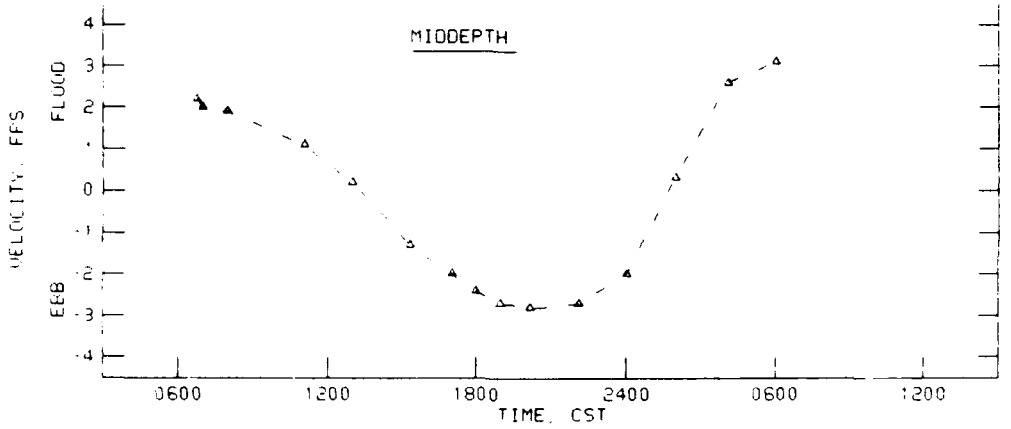


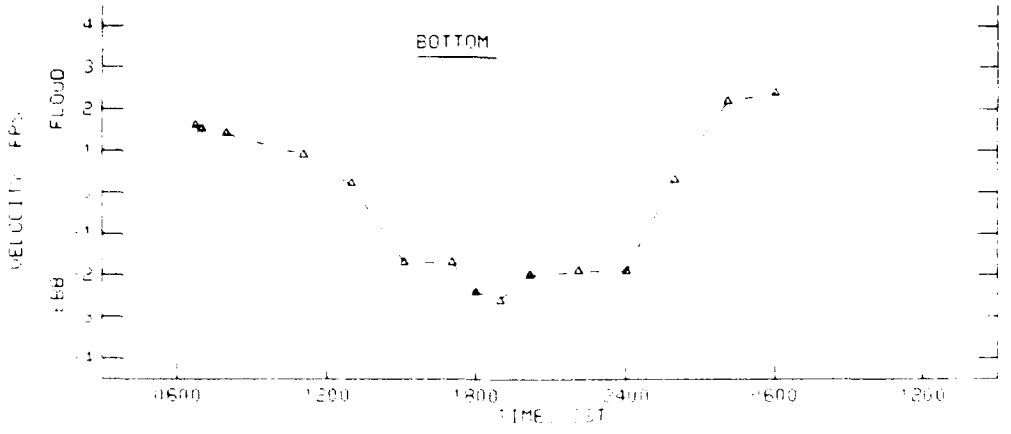
VELOCITIES AT R1.0A

25-26 MAY 1990

PLATE 5



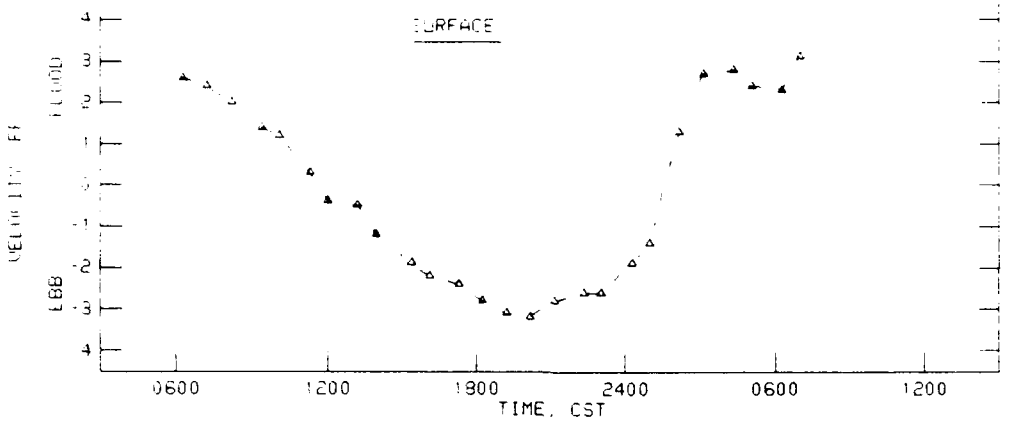


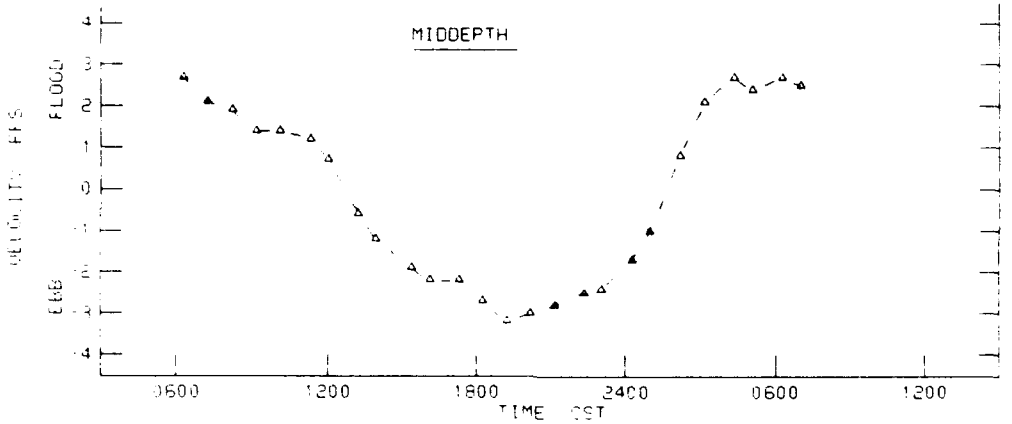


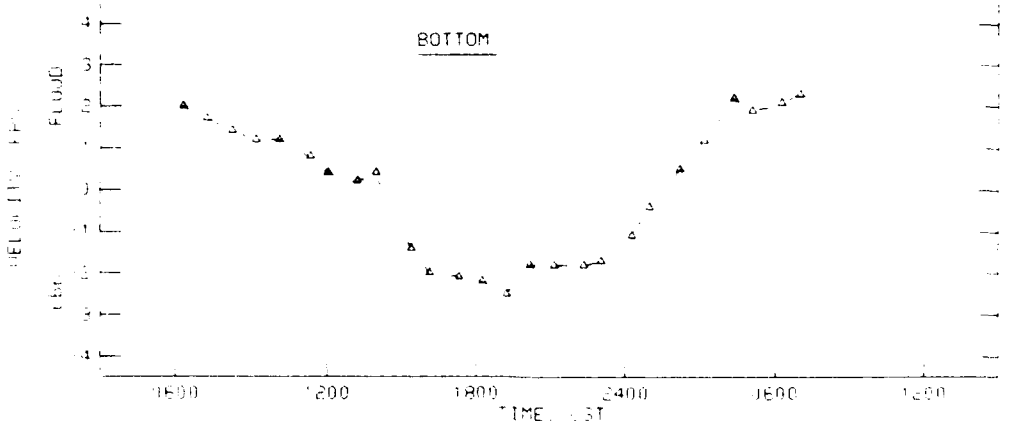
VELOCITIES AT R1.0B

25-26 MAY 1990

PLATE 6



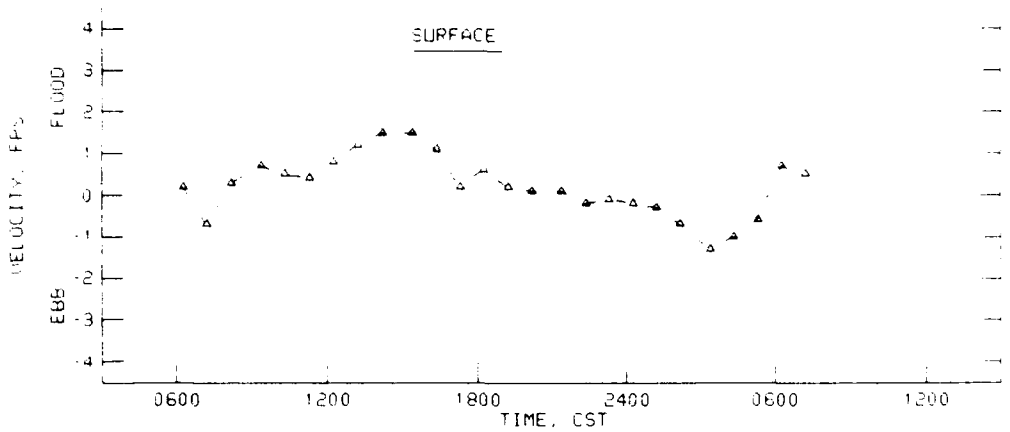


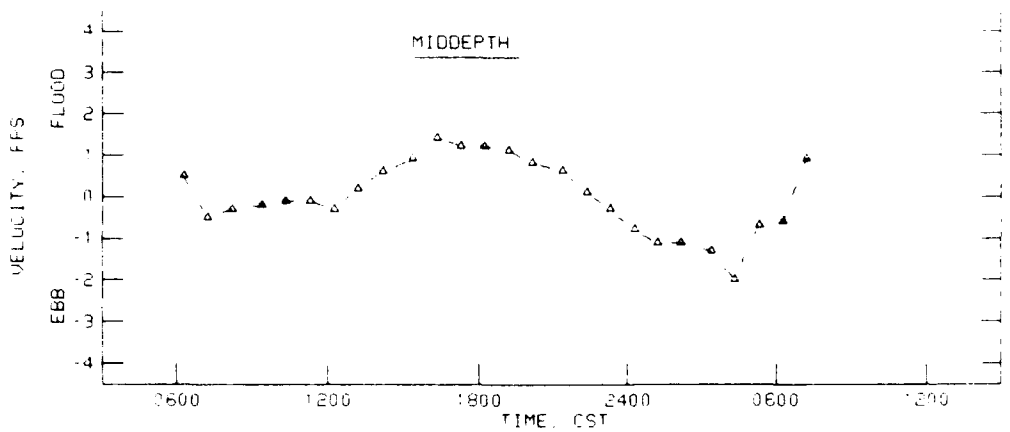


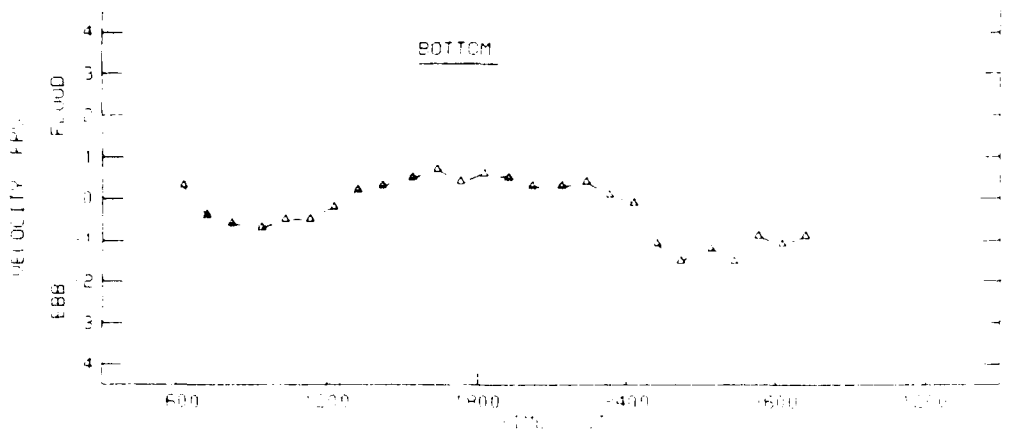
VELOCITIES AT R1.0C

25-26 MAY 1990

PLATE 7



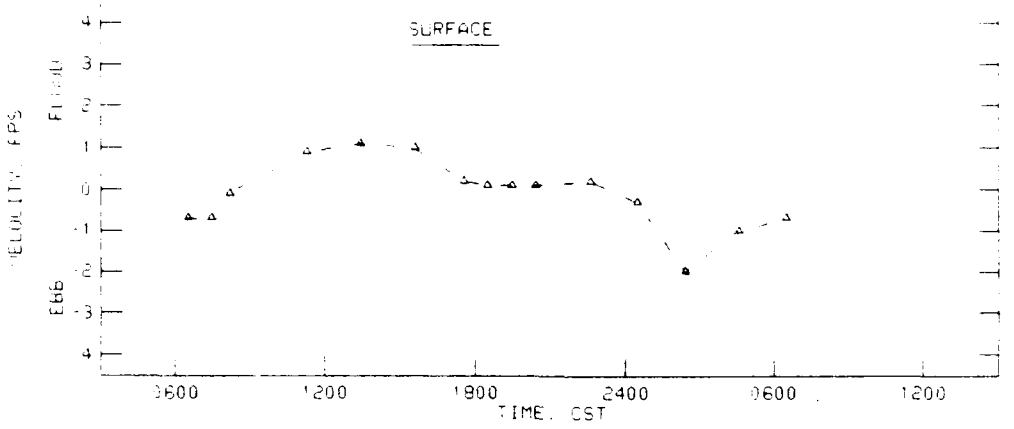


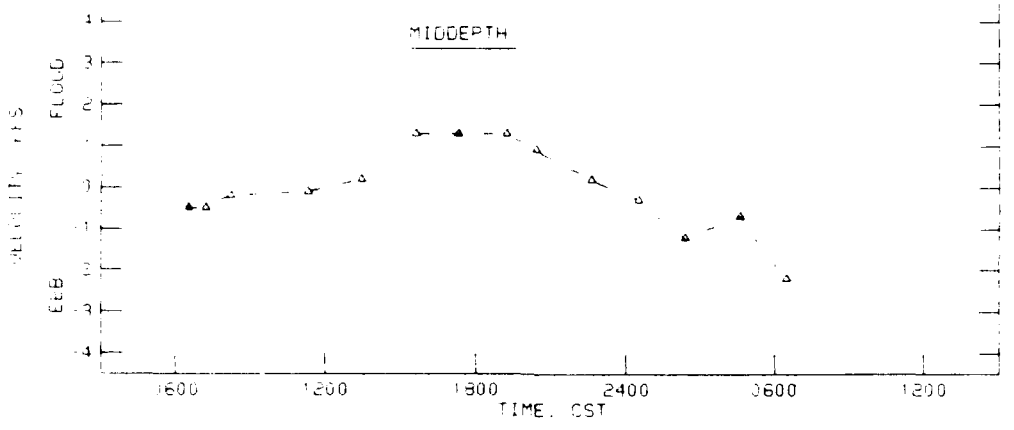


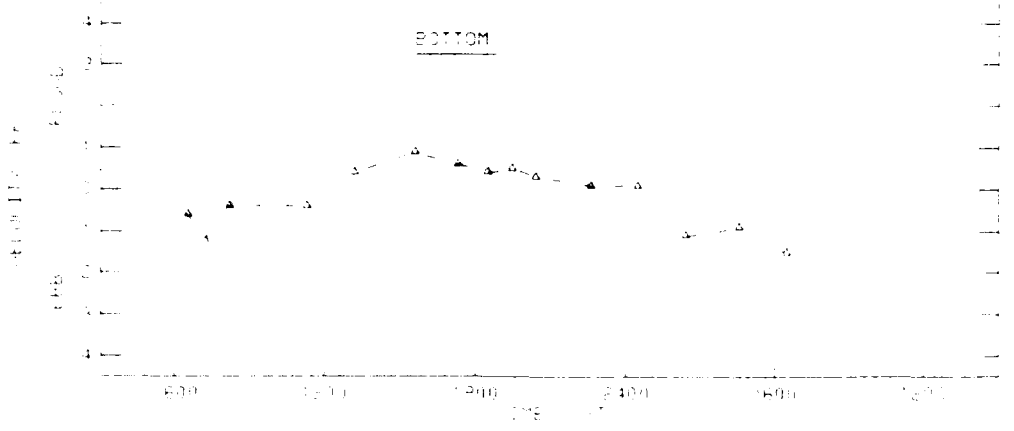
VELOCITIES AT R2.0A

25-26 MAY 1990

PLATE 8



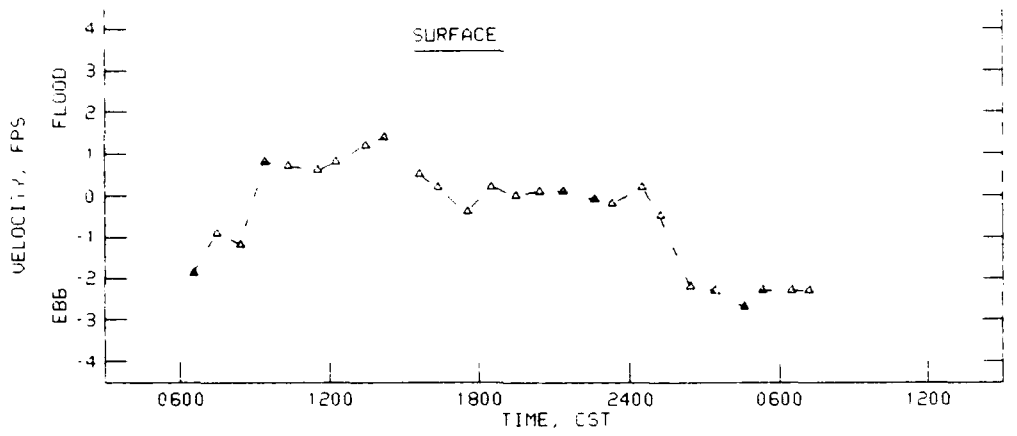


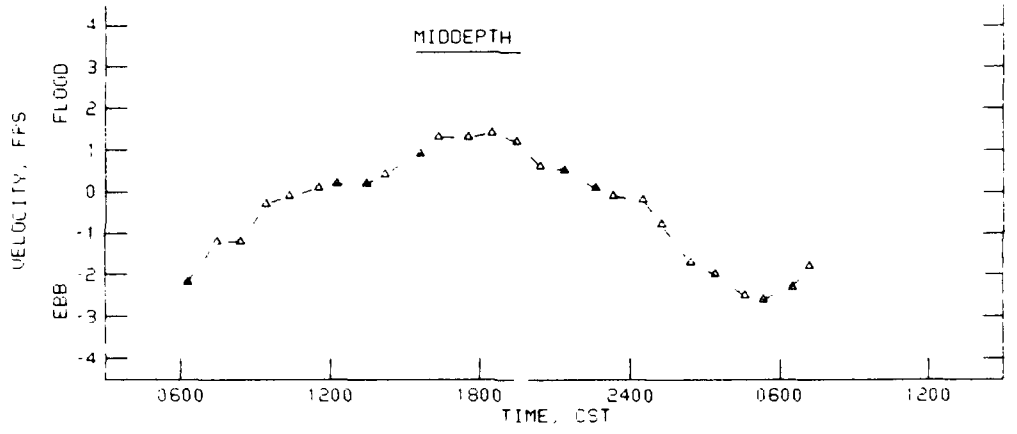


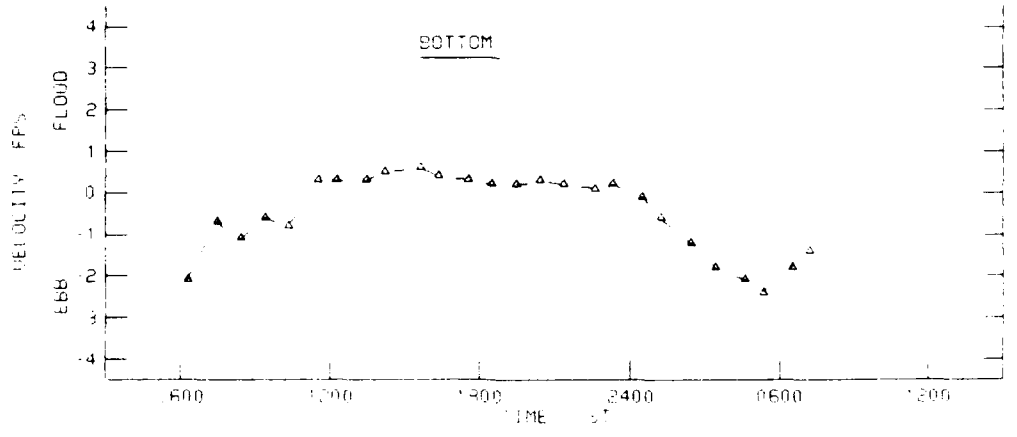
VELOCITIES AT R2.0B

25-26 MAY 1990

PLATE 9



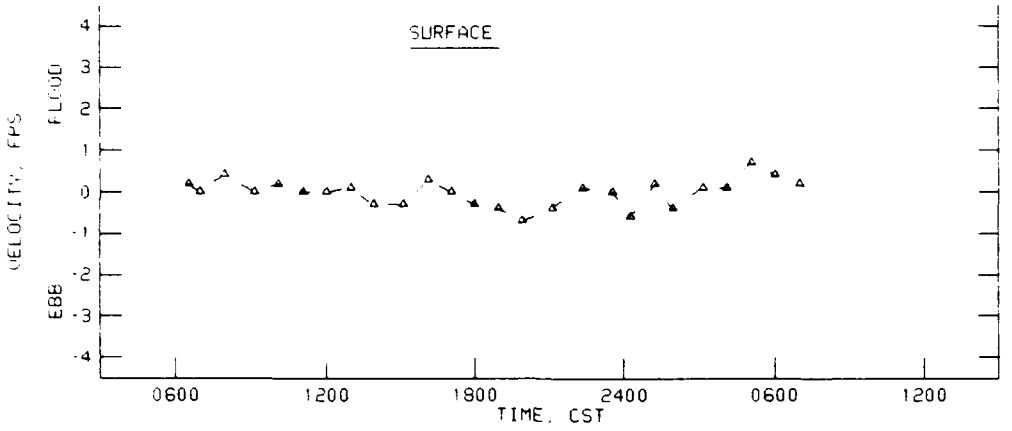


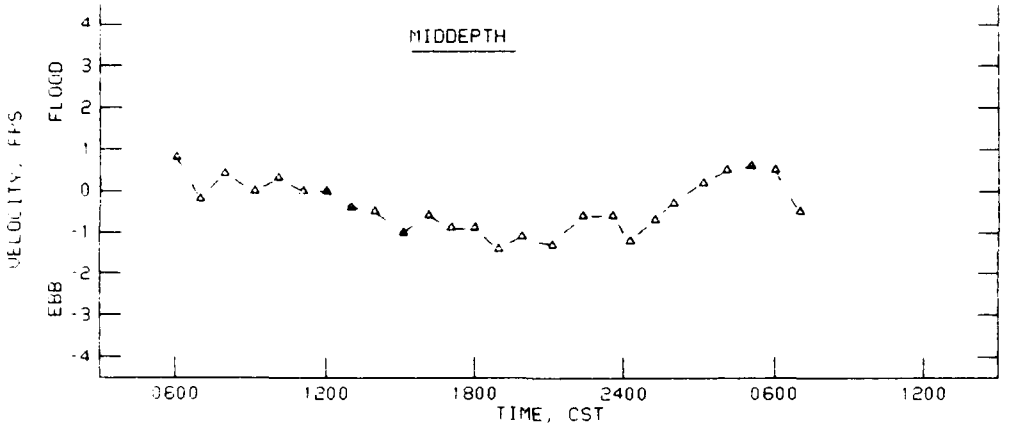


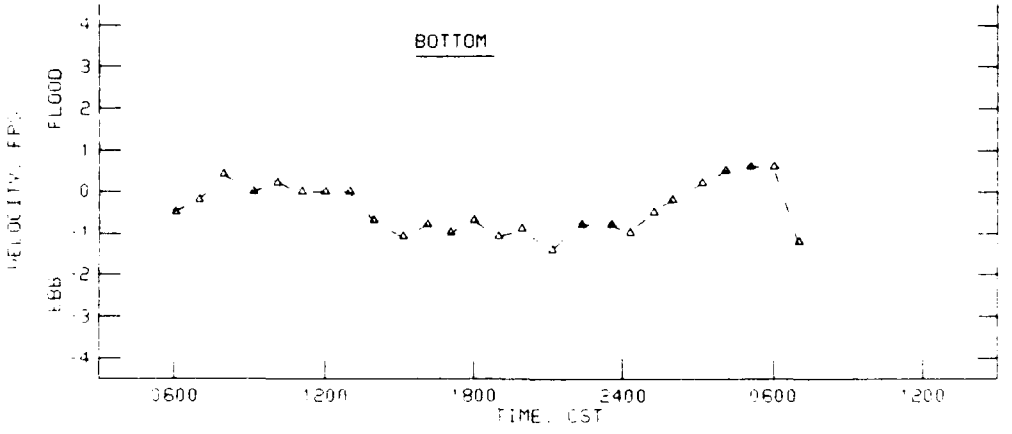
VELOCITIES AT R2.0C

25-26 MAY 1990

PLATE 10



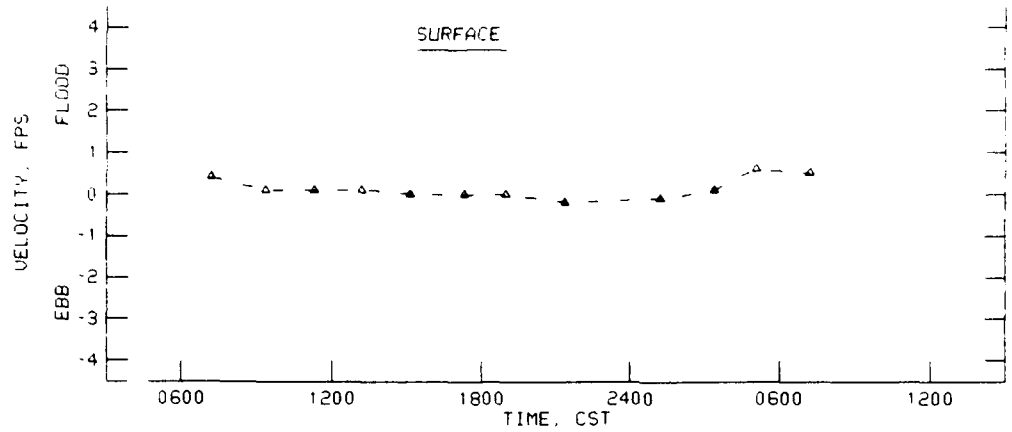


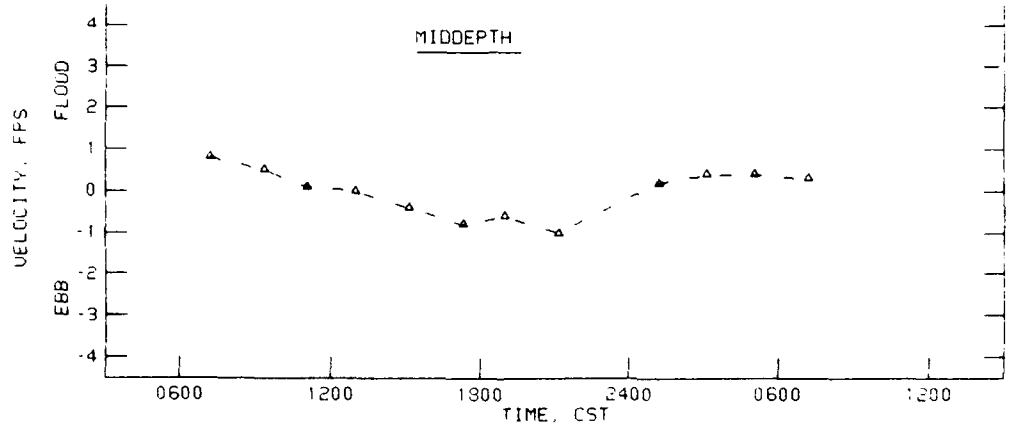


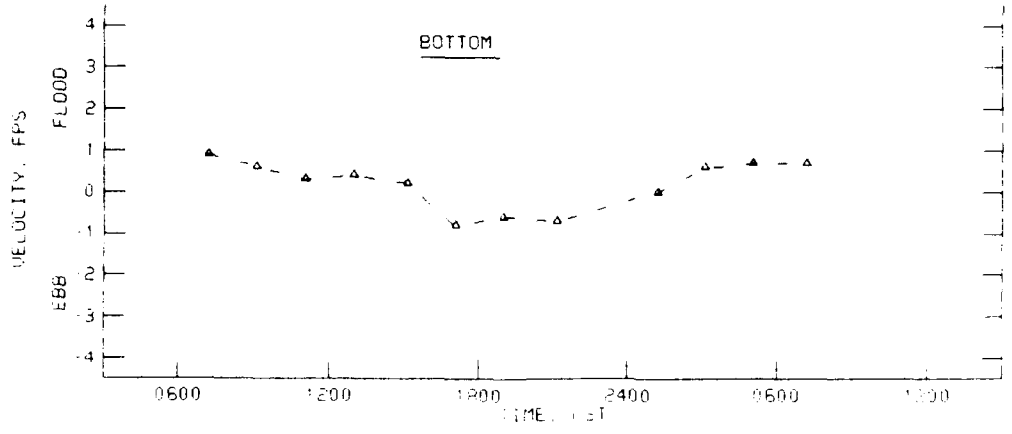
VELOCITIES AT R3.0A

25-26 MAY 1990

PLATE 11



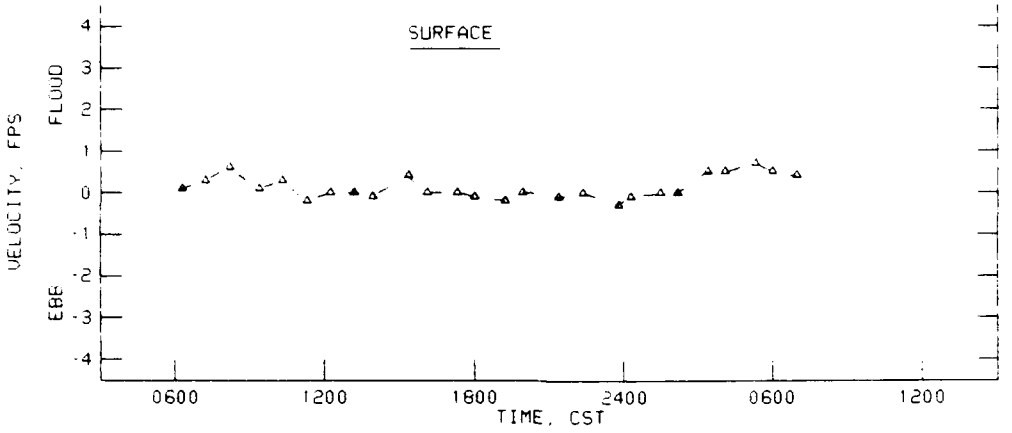


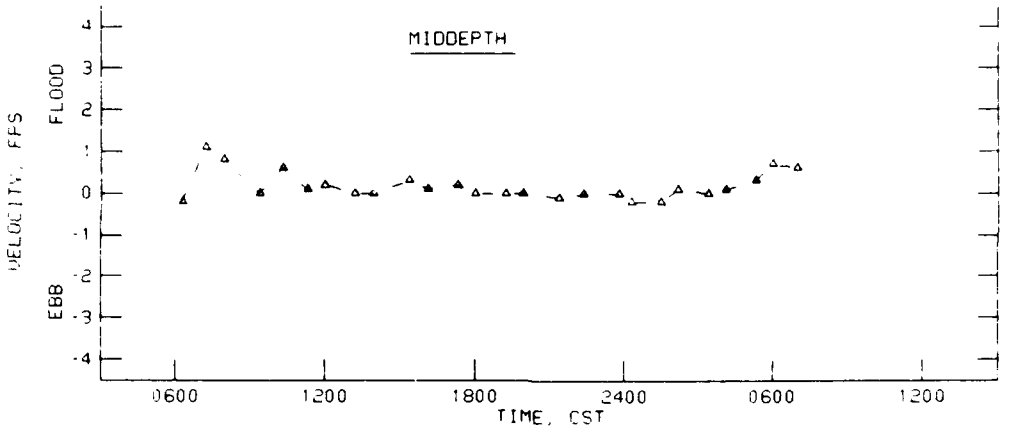


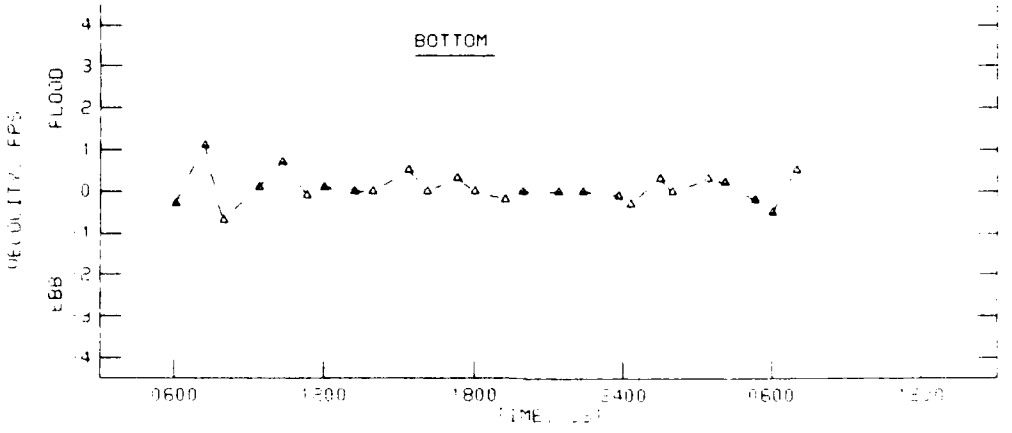
VELOCITIES AT R3.0B

25-26 MAY 1990

PLATE 12



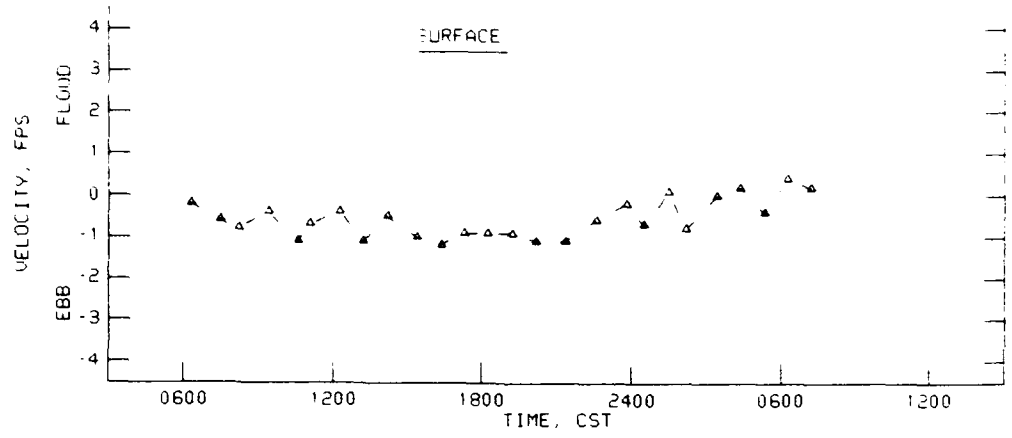


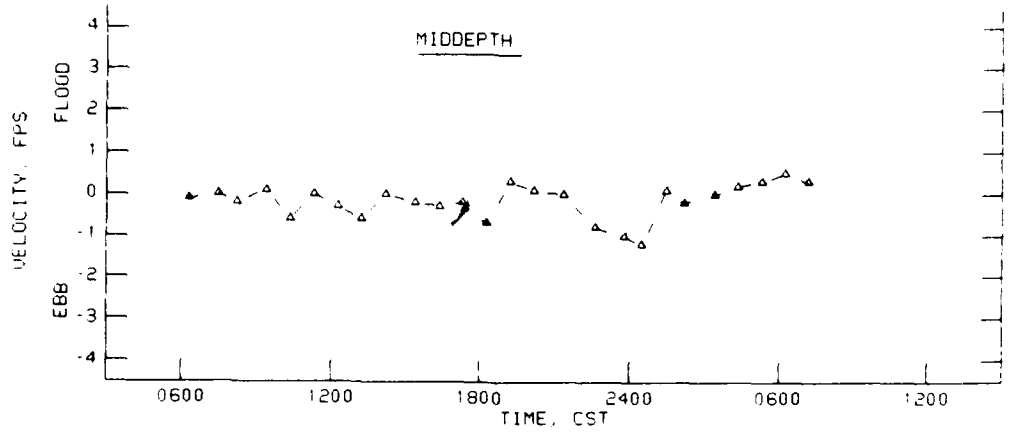


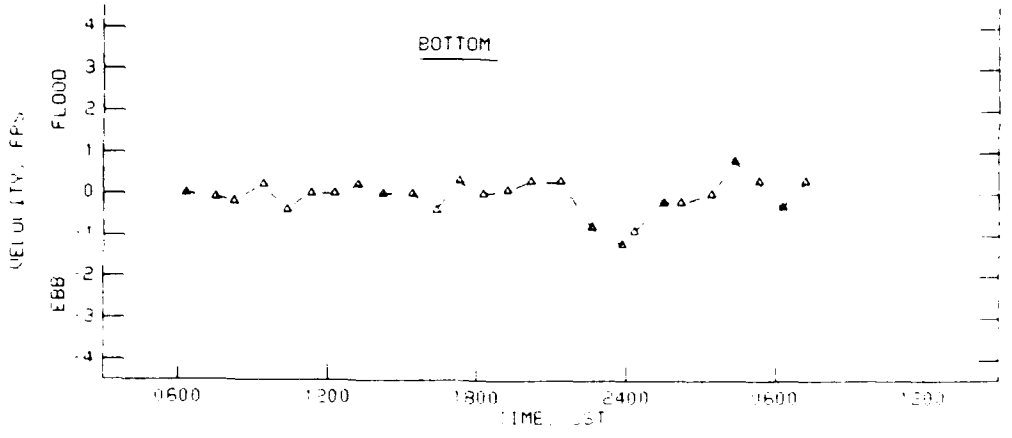
VELOCITIES AT R3.0C

25-26 MAY 1990

PLATE 13



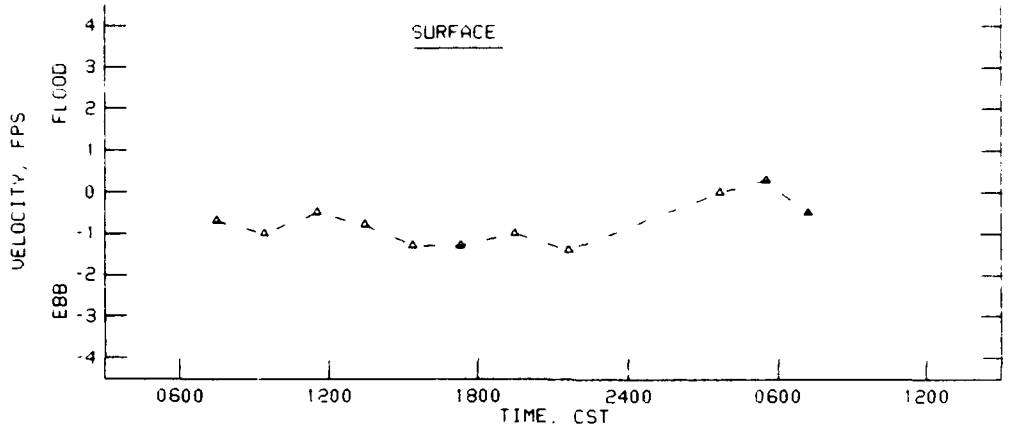


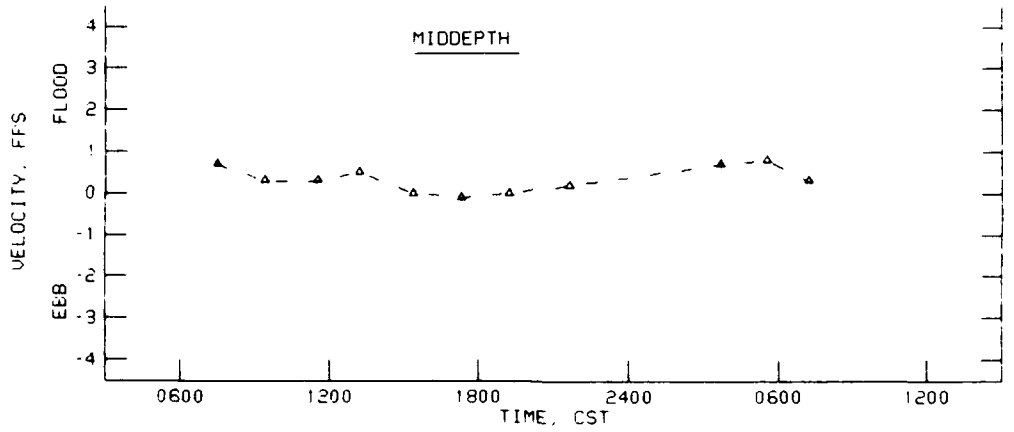


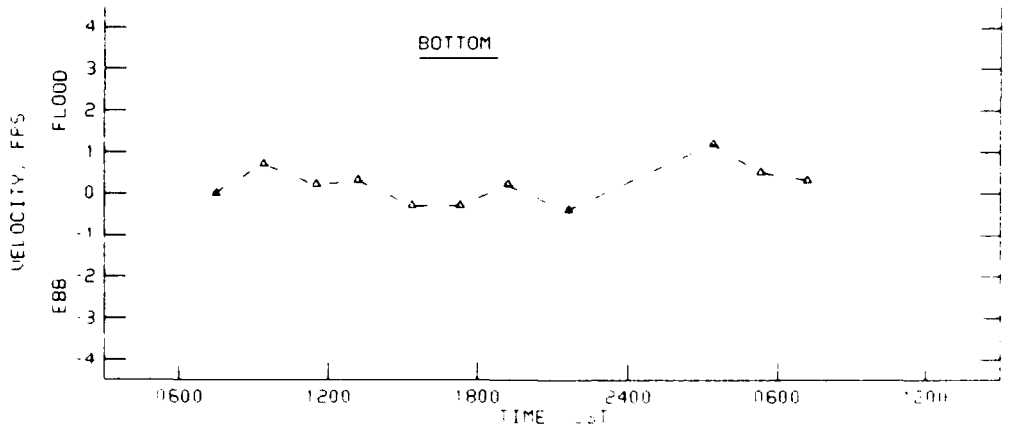
VELOCITIES AT R4.0A

25-26 MAY 1990

PLATE 14



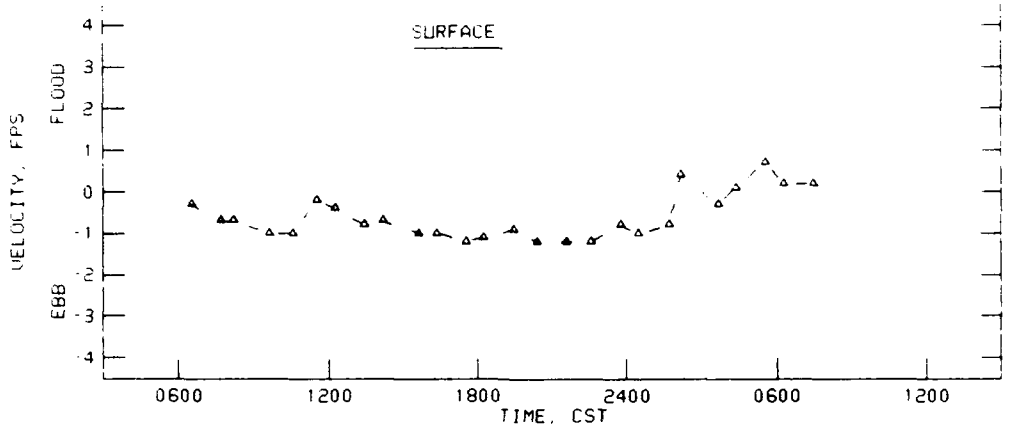


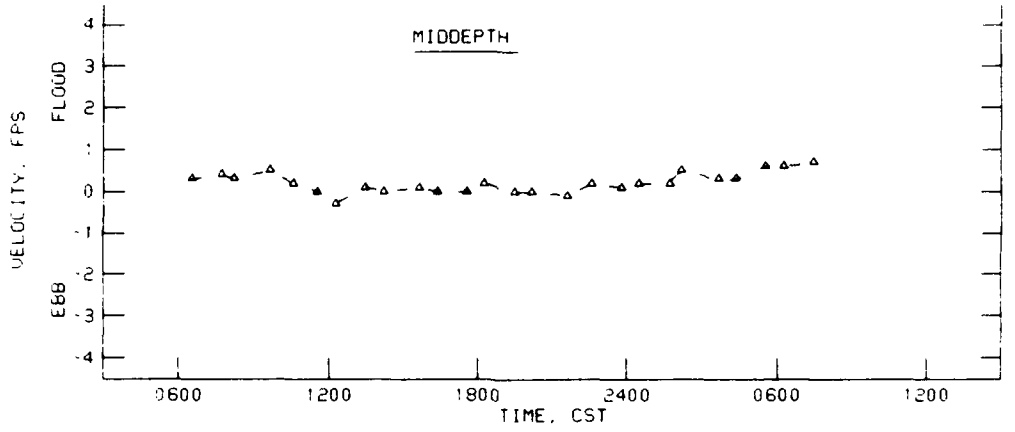


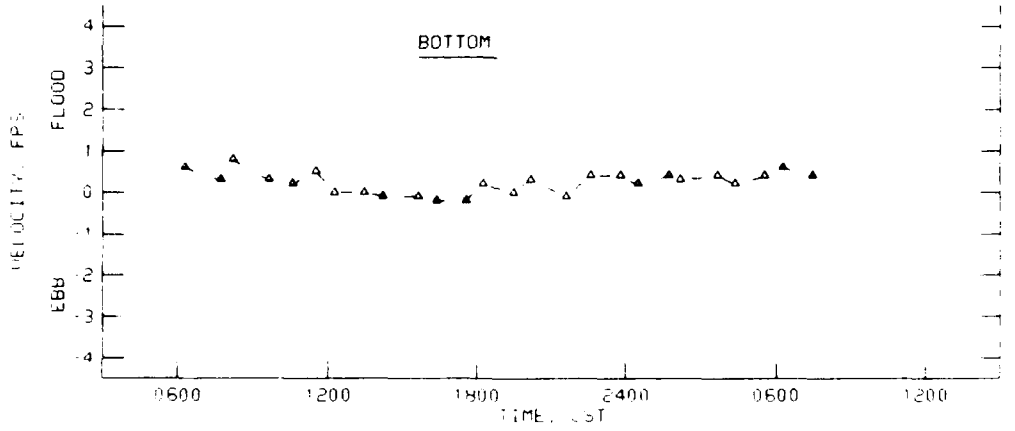
VELOCITIES AT R4.0B

25-26 MAY 1990

PLATE 15



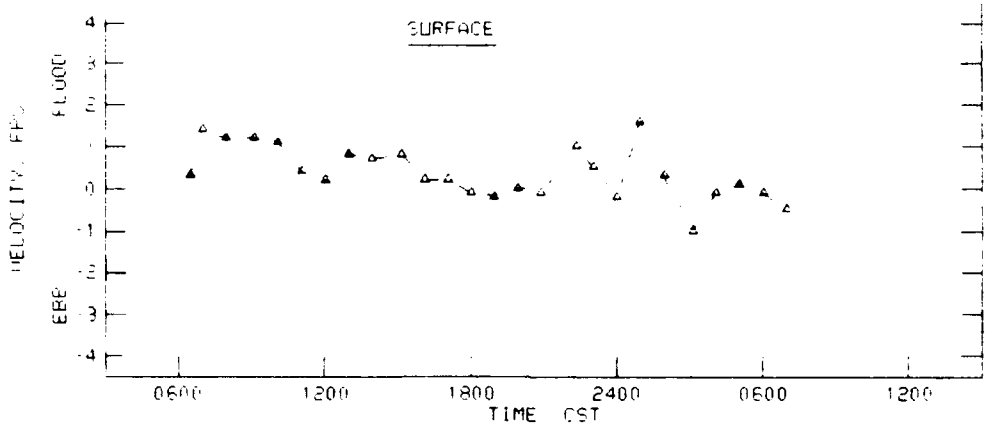


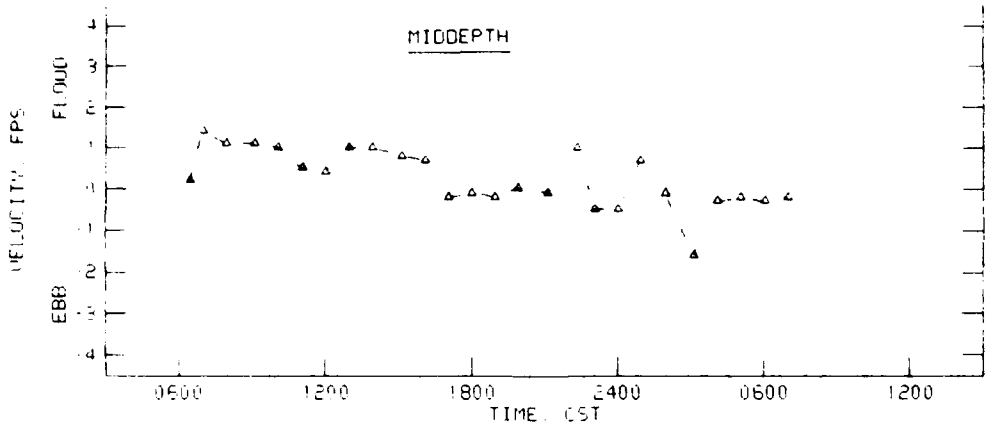


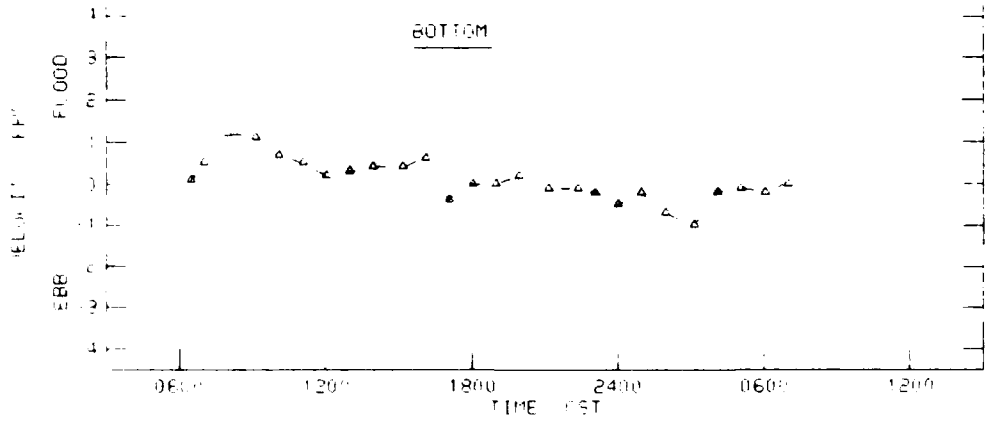
VELOCITIES AT R4.0C

25-26 MAY 1990

PLATE 16



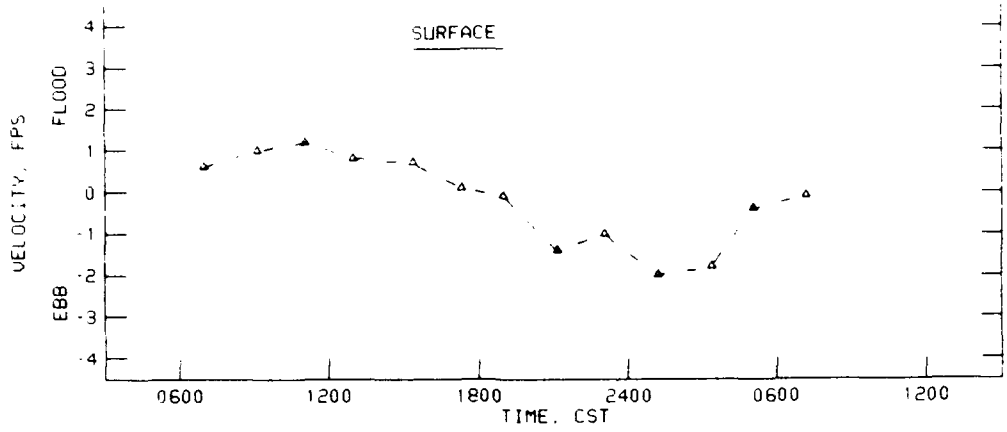


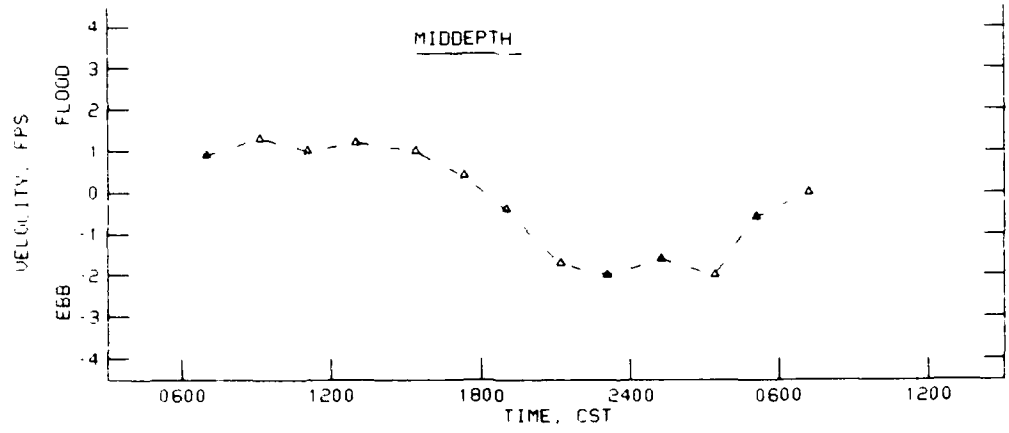


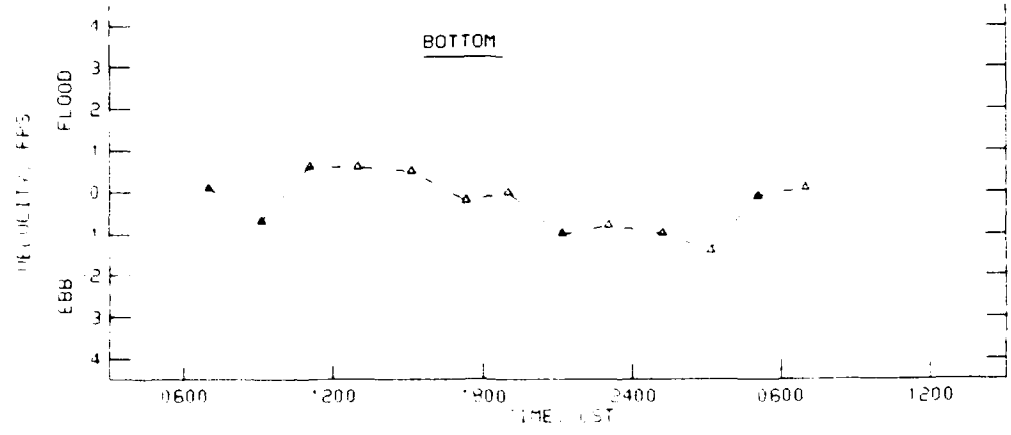
VELOCITIES AT R5.0A

25-26 MAY 1990

PLATE 17



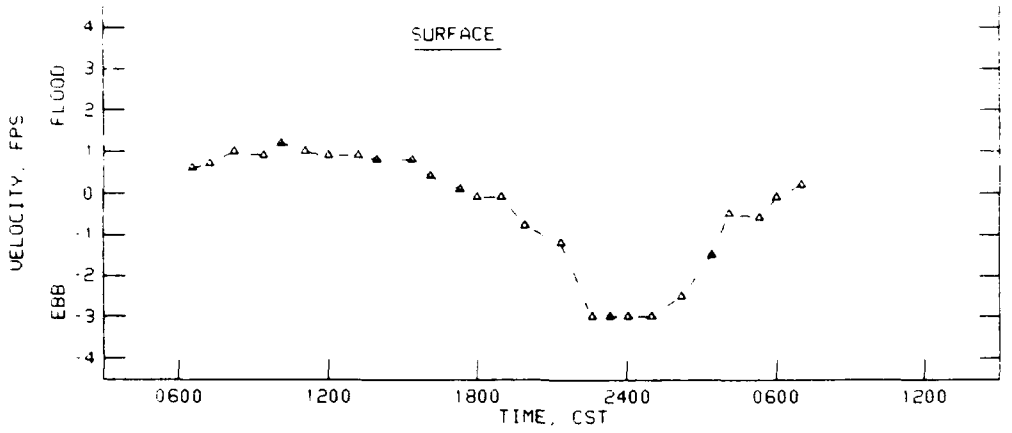


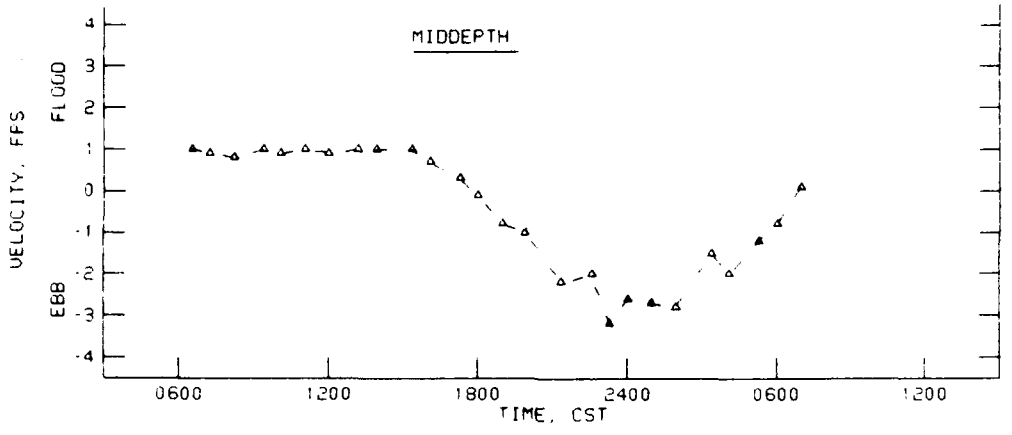


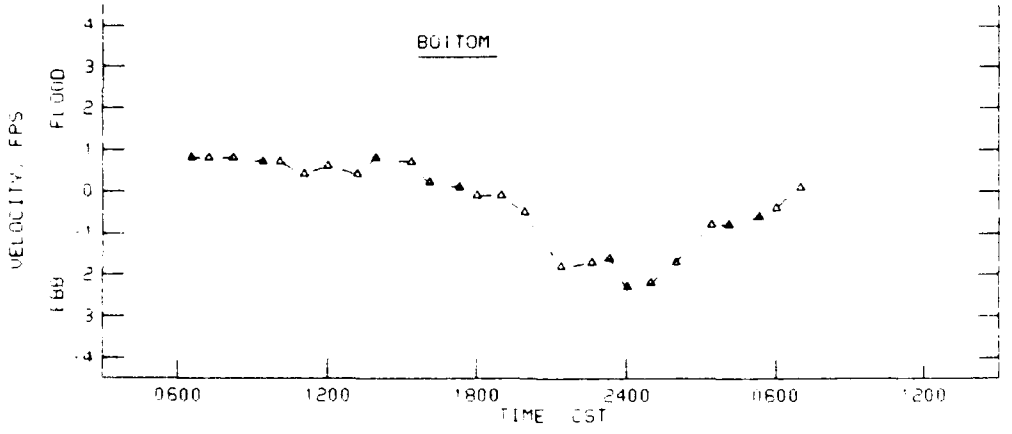
VELOCITIES AT R5.0B

25-26 MAY 1990

PLATE 18



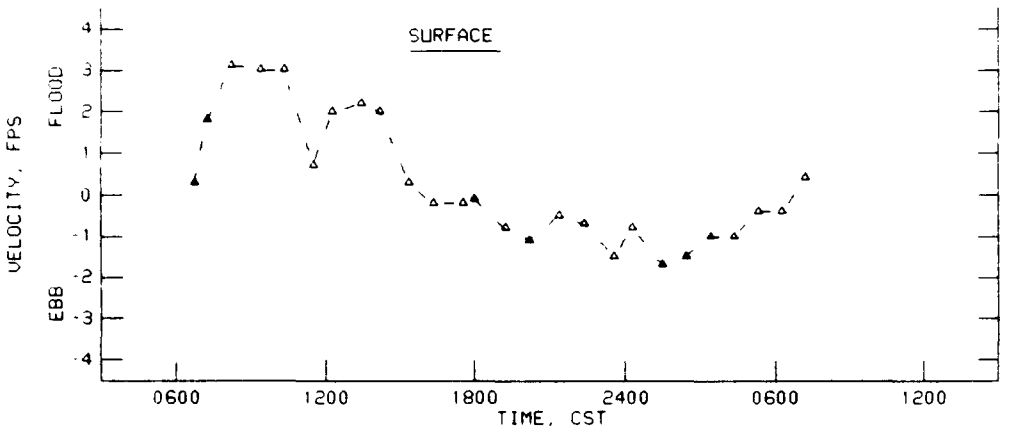


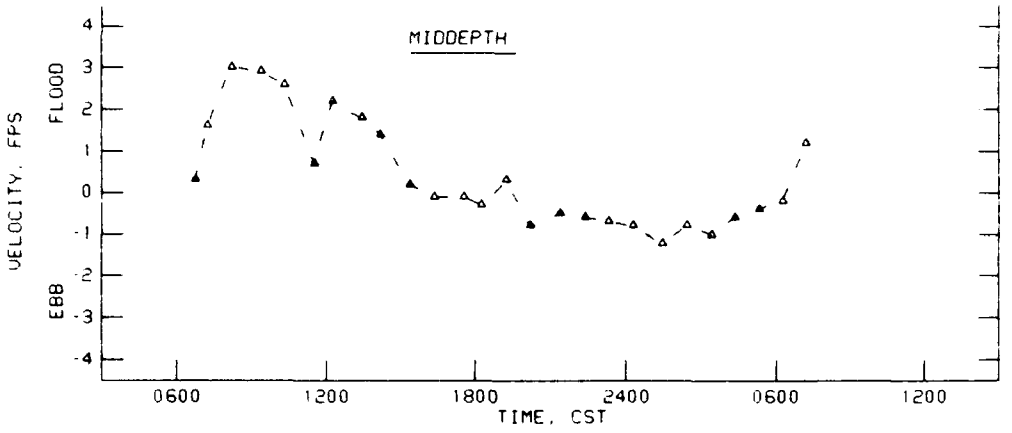


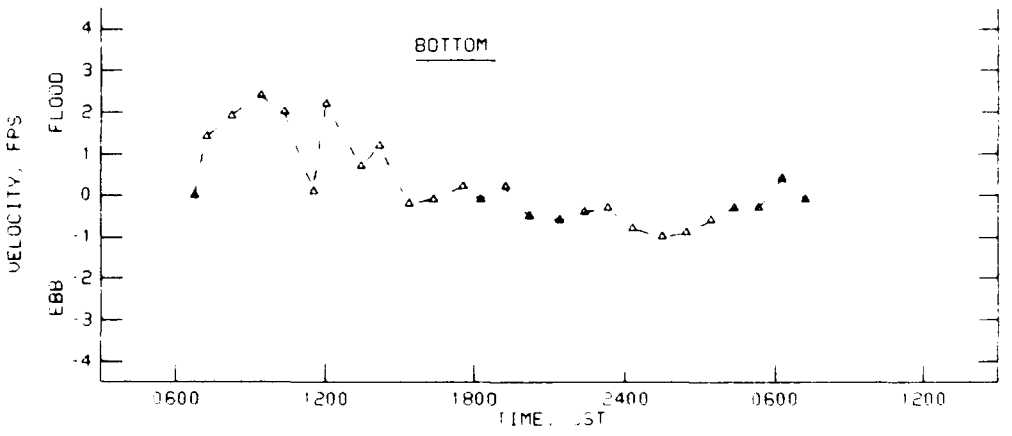
VELOCITIES AT R5.0C

25-26 MAY 1990

PLATE 19



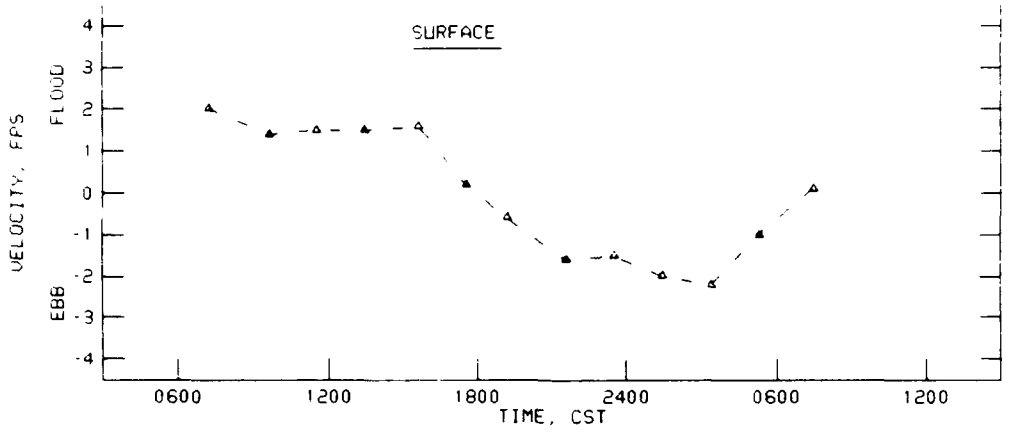


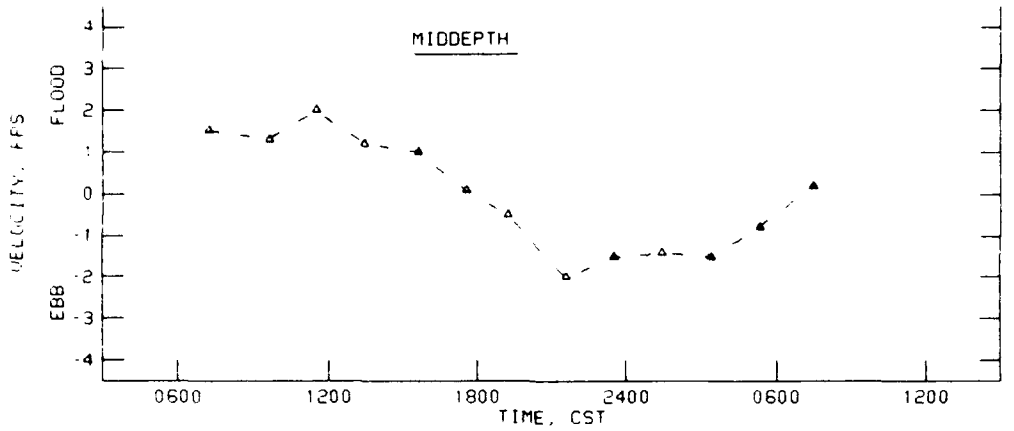


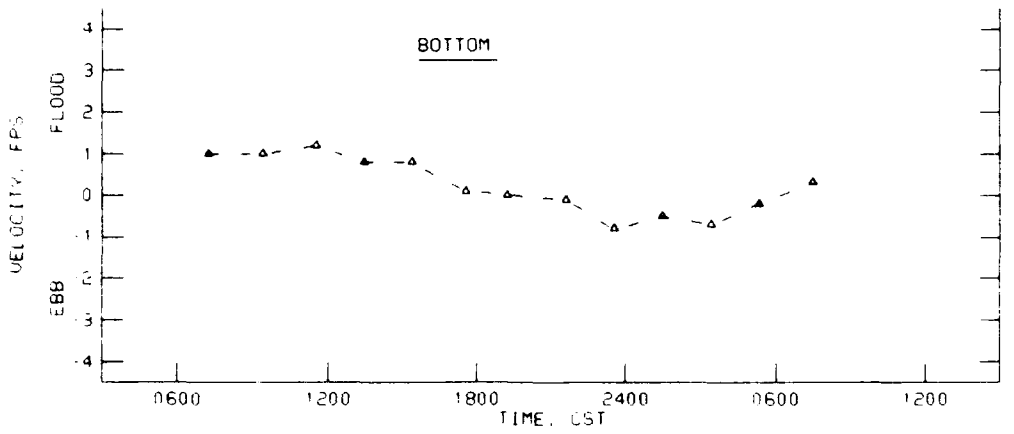
VELOCITIES AT R6.0A

25-26 MAY 1990

PLATE 20



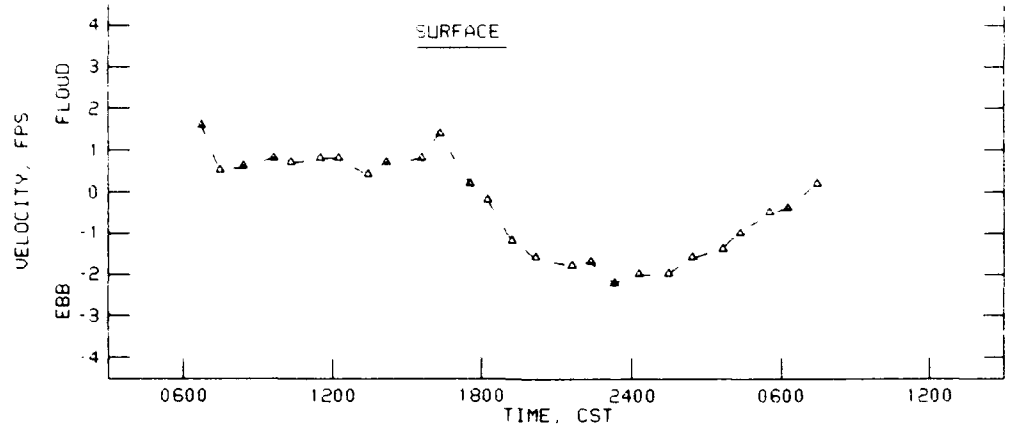


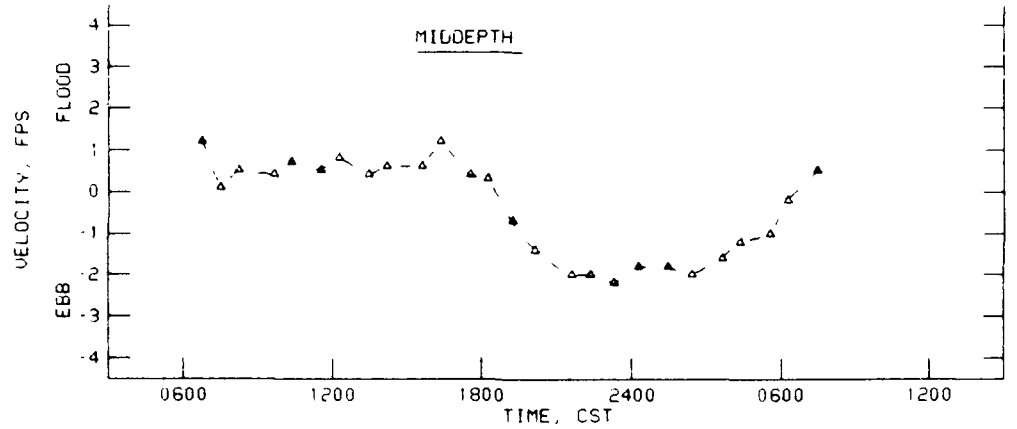


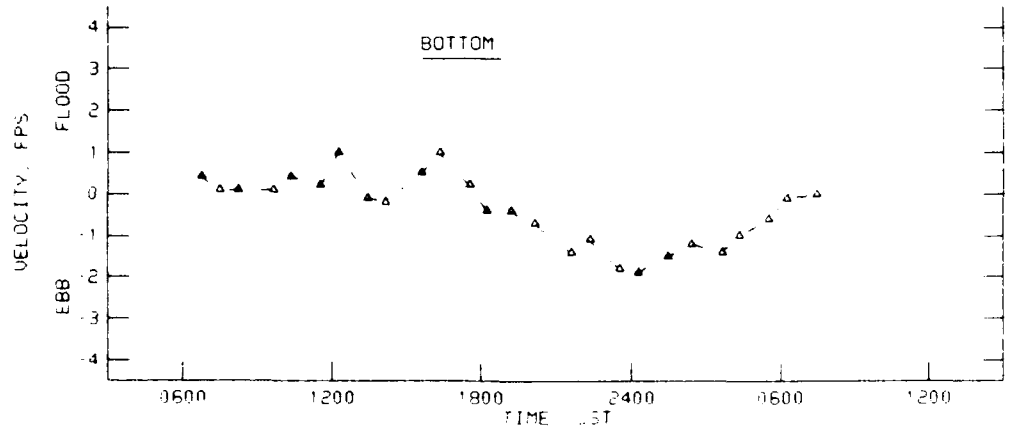
VELOCITIES AT R6.0B

25-26 MAY 1990

PLATE 21



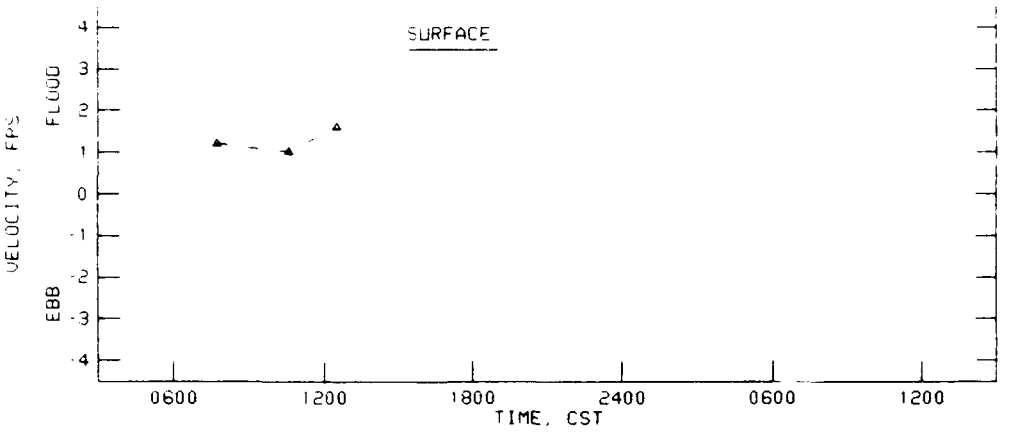


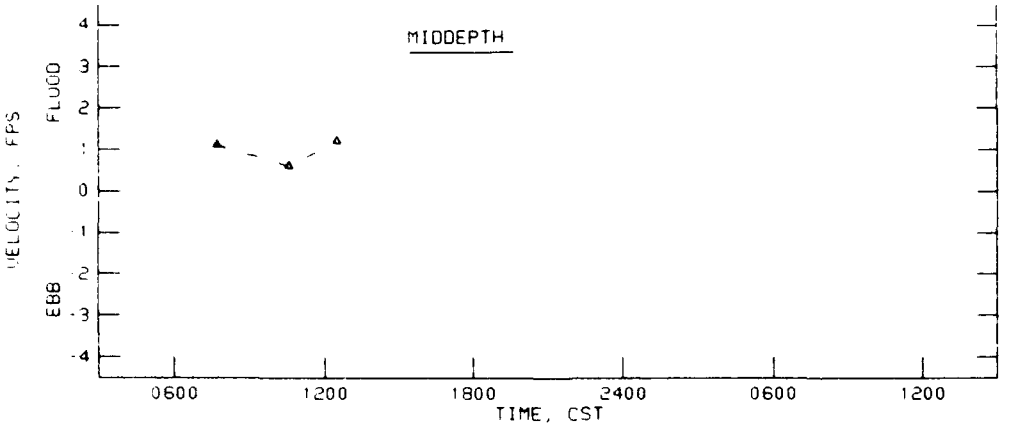


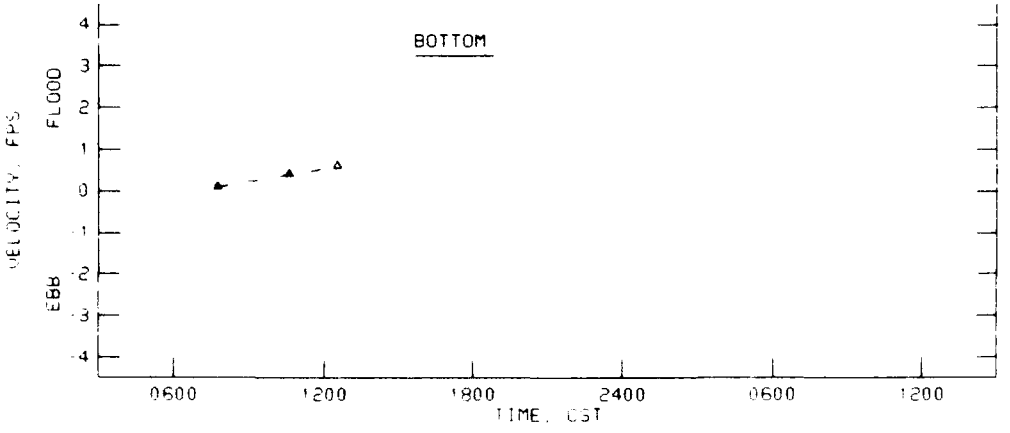
VELOCITIES AT R6.0C

25-26 MAY 1990

PLATE 22



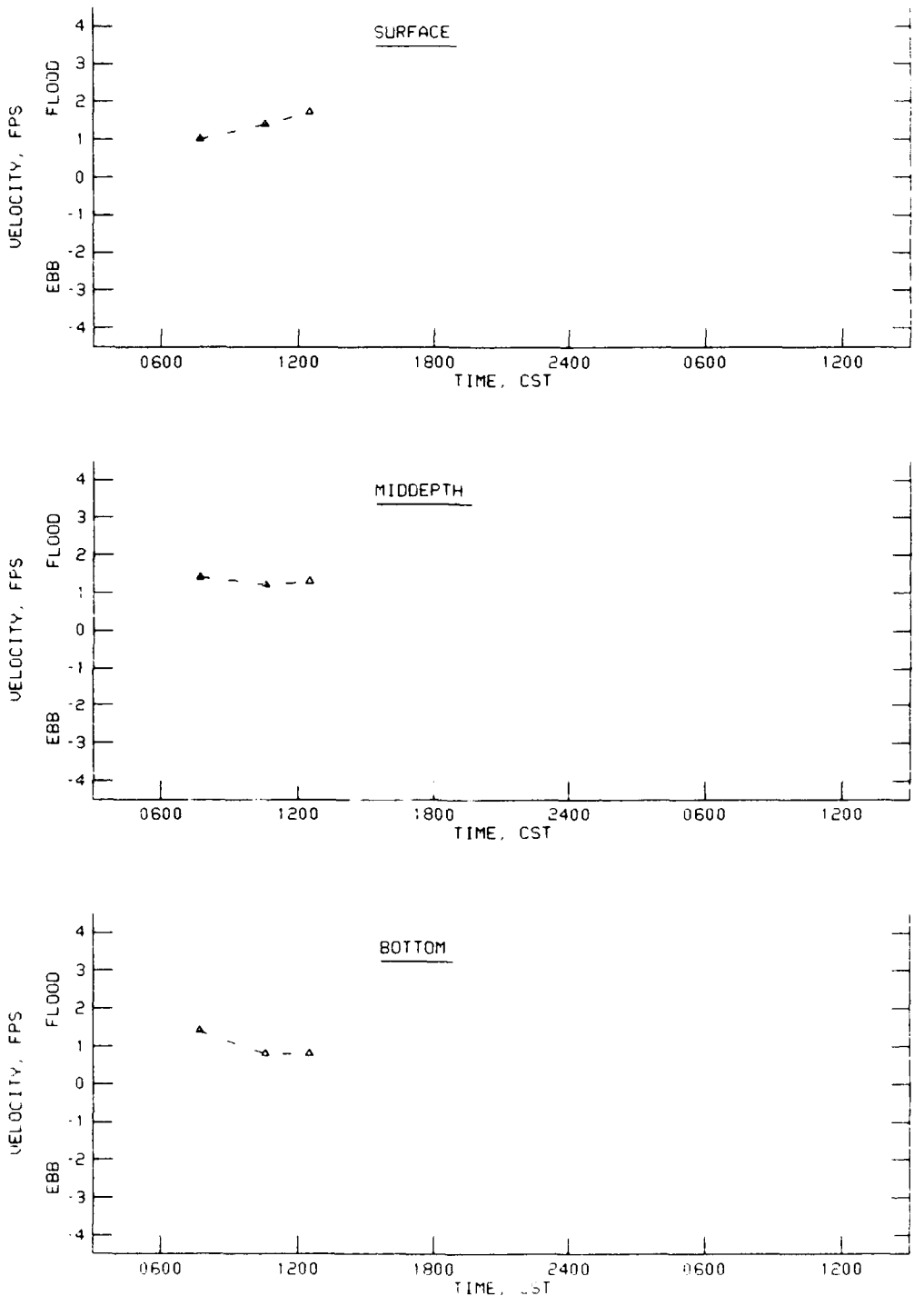




VELOCITIES AT R7.0A

25-26 MAY 1990

PLATE 23



VELOCITIES AT R7.0C

25-26 MAY 1990

PLATE 24

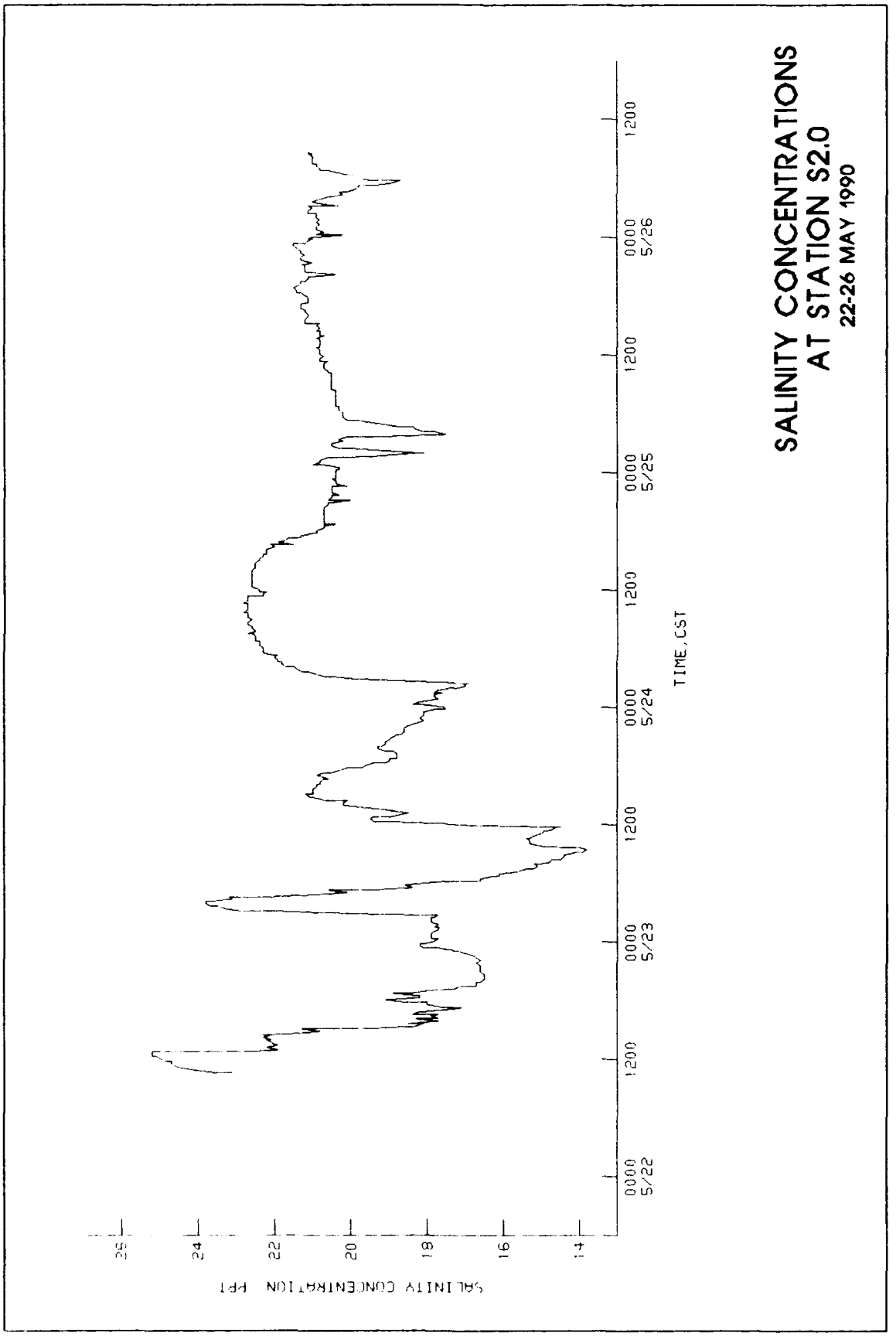

SALINITY CONCENTRATIONS
AT STATION S2.0
22-26 MAY 1990
SALINITY CONCENTRATION PPT
26
24
22
20
18
16
14
0000
5/22
1200
0000
5/23
1200
0000
5/24
1200
0000
5/25
1200
0000
5/26
TIME, CST

PLATE 25

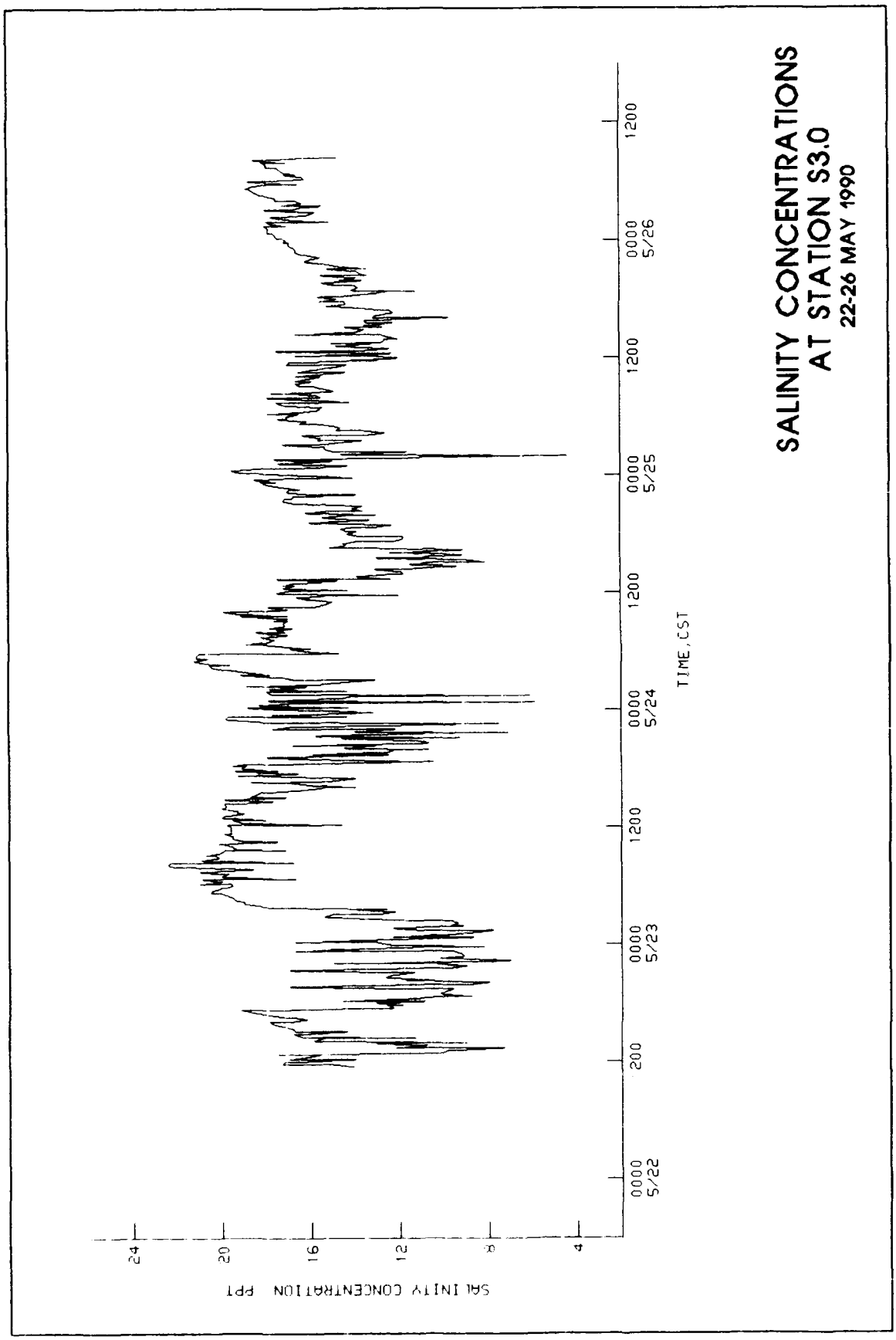
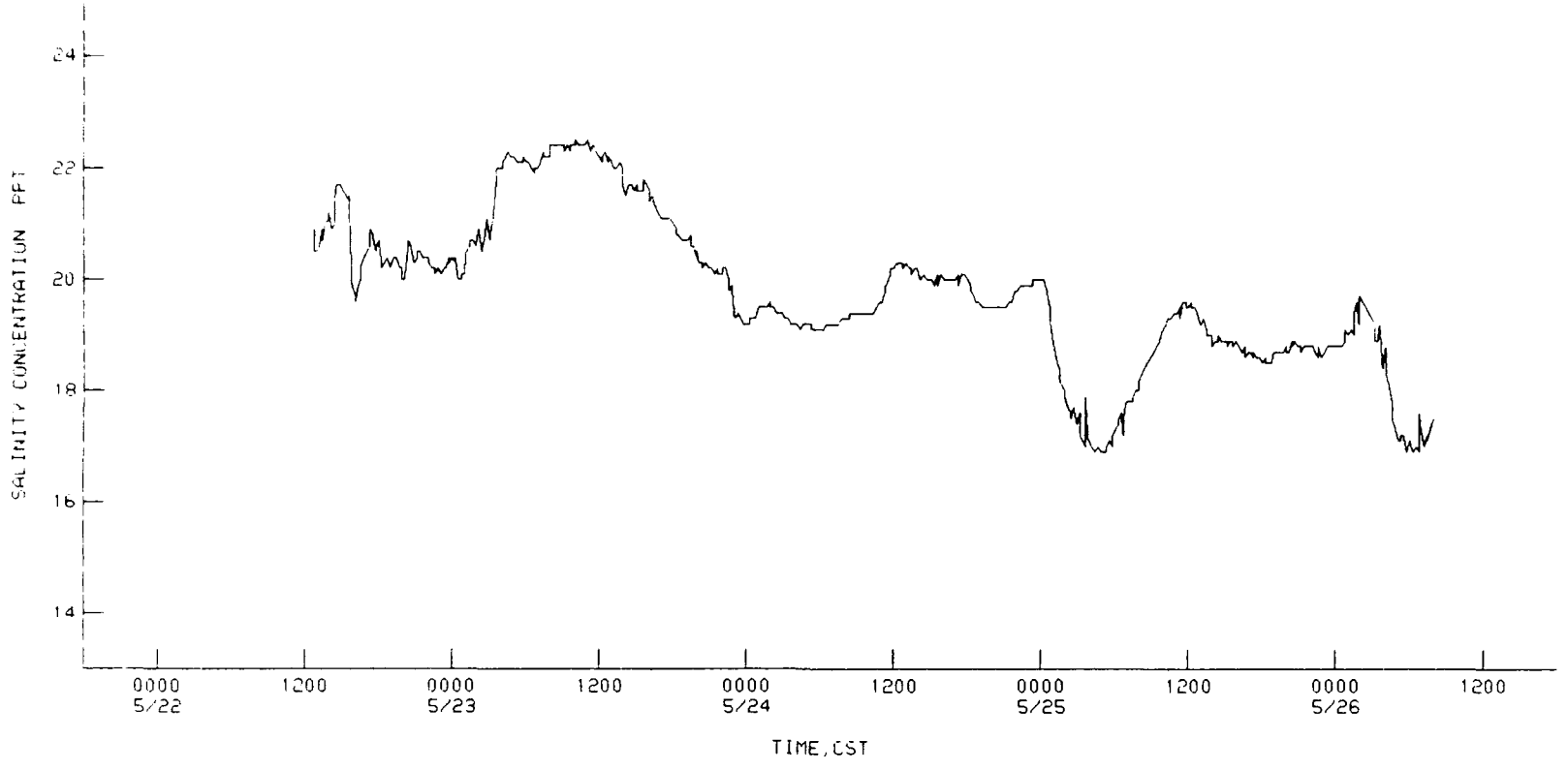

SALINITY CONCENTRATIONS
AT STATION S3.0
22-26 MAY 1990
SALINITY CONCENTRATION PPT
24
20
16
12
8
4
TIME, CST
0000 5/22
200
0000 5/23
1200
0000 5/24
1200
0000 5/25
1200
0000 5/26
1200

PLATE 26



SALINITY CONCENTRATIONS AT STATION S4.0
22-26 MAY 1990

PLATE 27

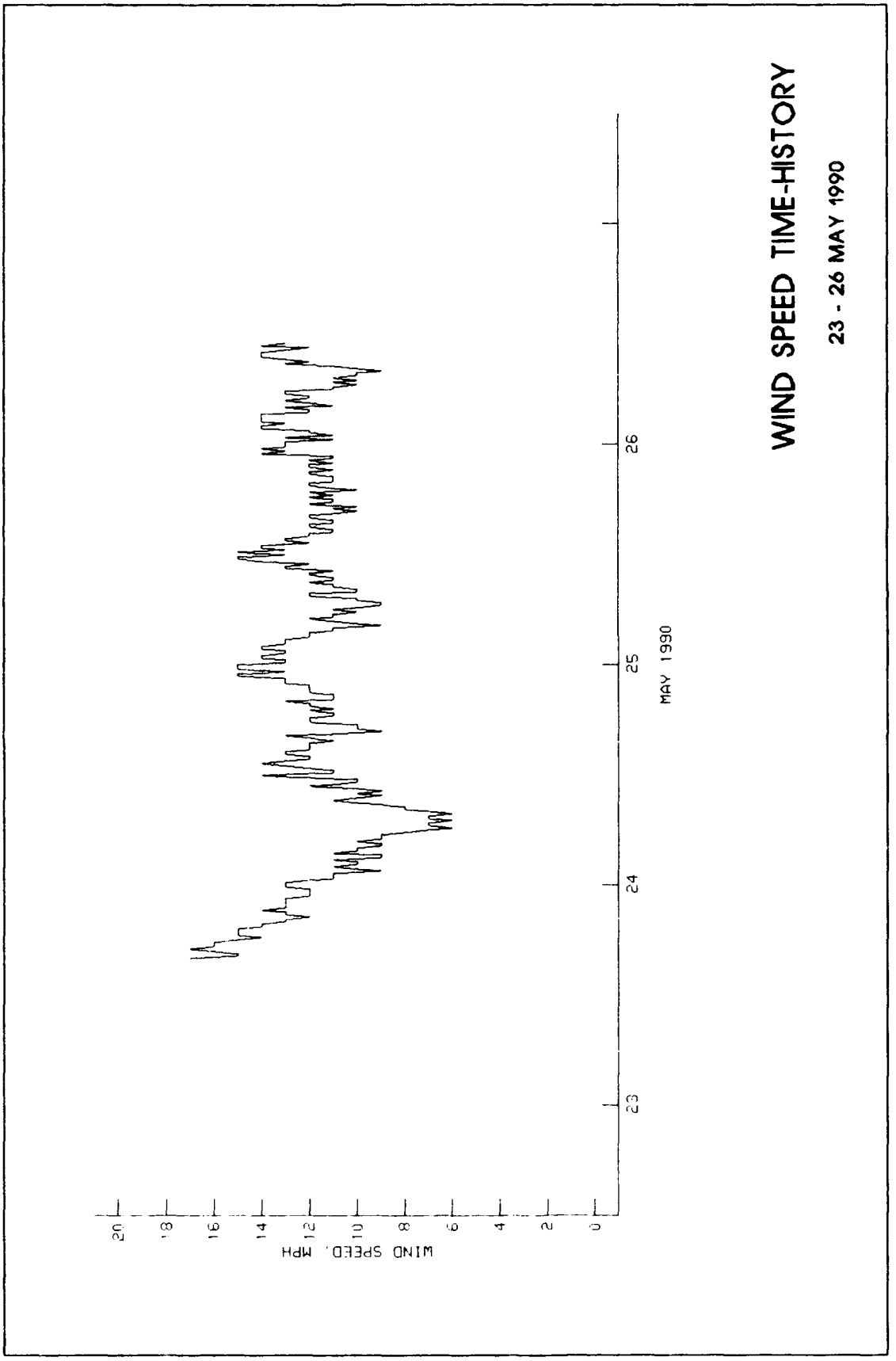
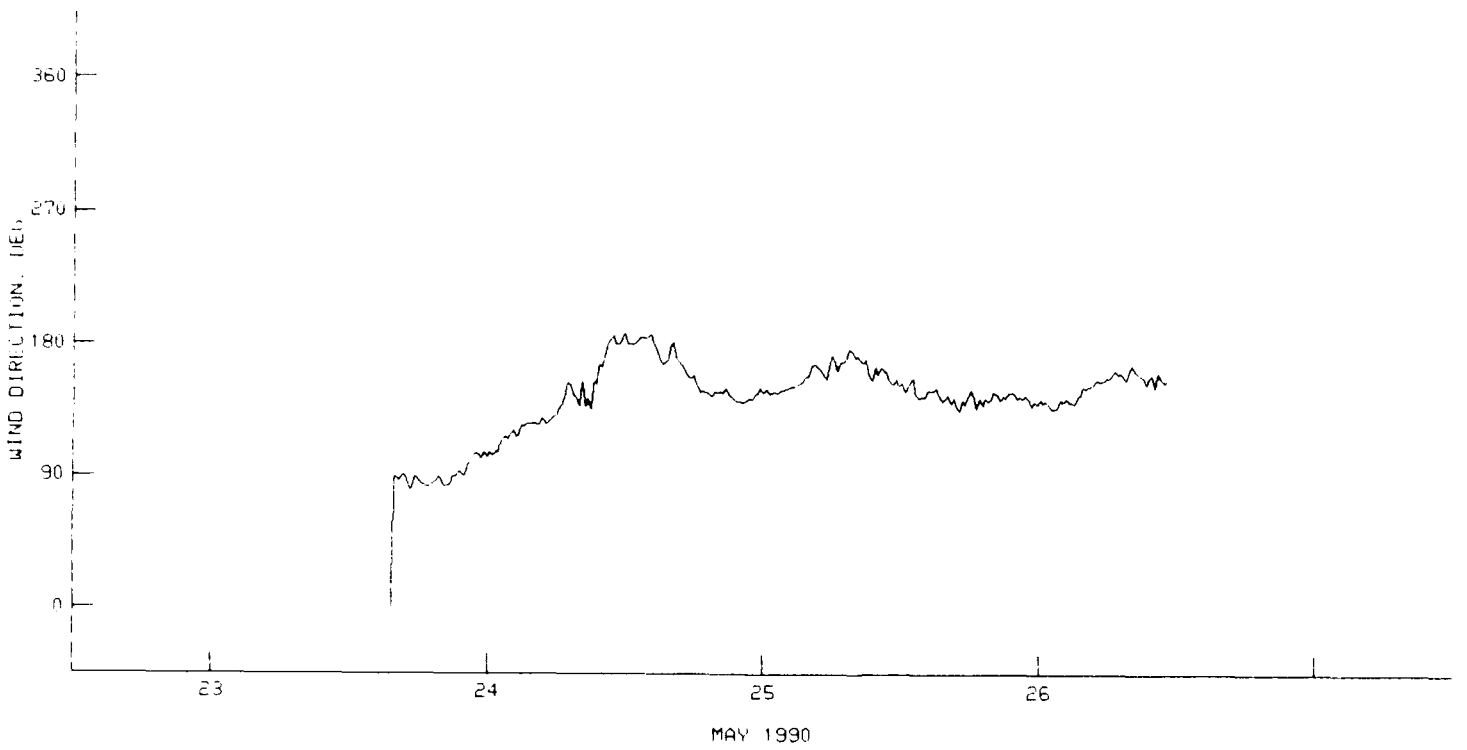

WIND SPEED TIME-HISTORY
23 - 26 MAY 1990
WIND SPEED, MPH
0
2
4
6
8
10
12
14
16
18
20
23
24
25
26
MAY 1990

PLATE 28



WIND DIRECTION TIME-HISTORY

23 - 26 MAY 1990

PLATE 29